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SNOWMOBILES



SERVICE
Bulletin

No. **97-1**

Date: July 8, 1996

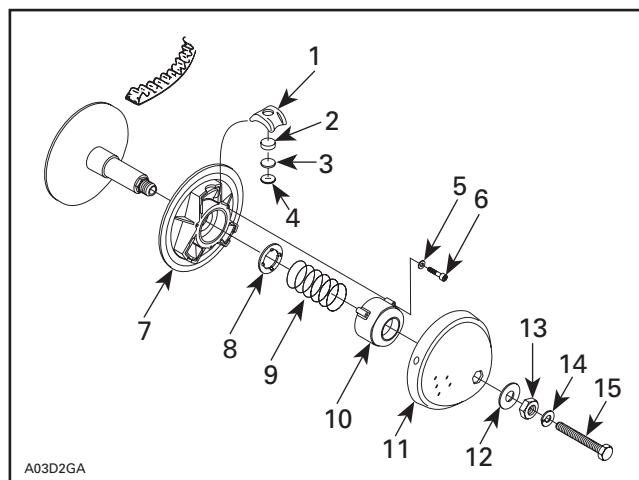
SUBJECT: Bombardier Lite Drive Pulley

YEAR	MODEL NAME	MODEL NUMBER	SERIAL NUMBER
1997	TOURING E	1115	ALL
1997	TOURING ELT	1116/1186	ALL
1997	FORMULA S	1108/1109	ALL
1997	SKANDIC 380	1120/1122	ALL

Corrections have been made in the *1997 Ski-Doo Shop Manual, Vol. 1*, concerning the drive pulley for the above mentioned models. Please update the *1997 Ski-Doo Shop Manual* (P/N 484 0647 00) by indicating this bulletin number in the proper section.

NOTE: This is a lubrication free drive pulley.

377 Engine S-Series



A03D2GA

Legende: Parts reference will appear throughout the text.

GENERAL

Some drive pulley components (return spring, calibration disk) can be changed to improve vehicle performance in high altitude regions. The High Altitude Technical Data booklet (P/N 484 0648 00 and 484 0545 00 for binder) gives information about calibration according to altitude.

▼ CAUTION

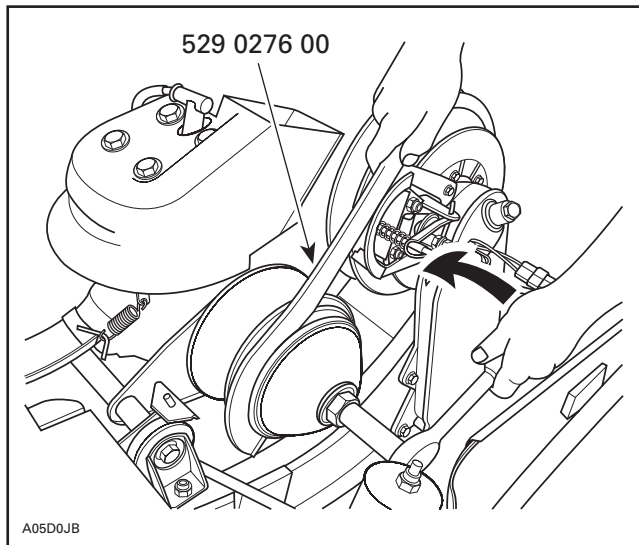
Such modifications should only be performed by experienced mechanics since they can greatly affect vehicle performance.

◆ WARNING

Any drive pulley repairs must be performed by an authorized Bombardier snowmobile dealer, or other such qualified person. Sub-component installation and assembly tolerances require strict adherence to procedures detailed.

REMOVAL

Retain drive pulley with clutch holder tool (P/N 529 0276 00).



TYPICAL

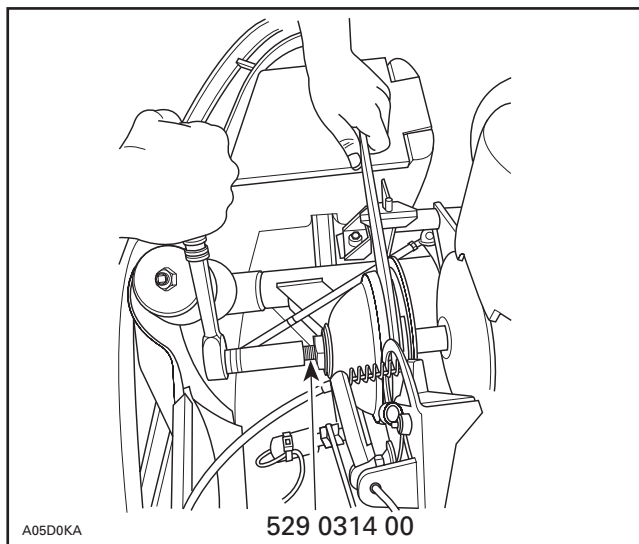
Remove retaining screw **no. 15** and lock washer **No. 14**.

Insert drive pulley puller (P/N 529 0314 00) and tighten to release pulley.

Remove drive pulley from vehicle.

◆ WARNING

Never use an impact wrench to remove or install the drive pulley.

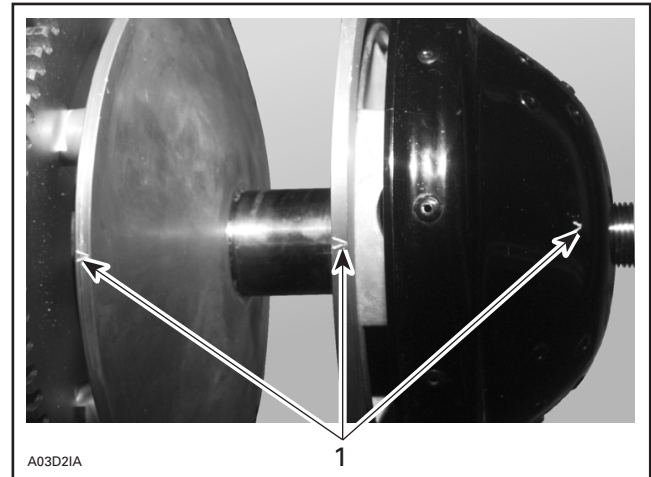


TYPICAL

DISASSEMBLY

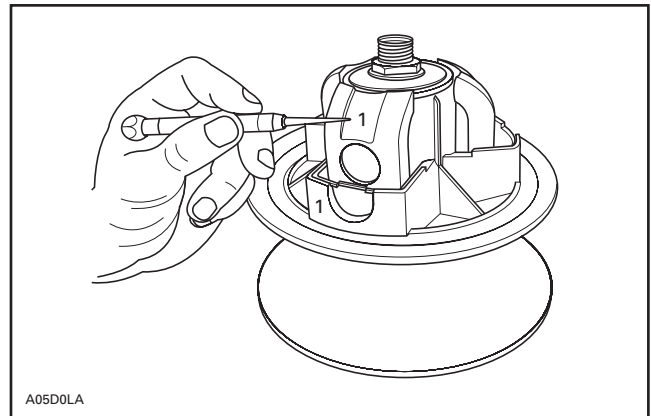
Unscrew nut **no. 13**. Remove washer.

Check for alignment marks for proper indexing at reassembly.



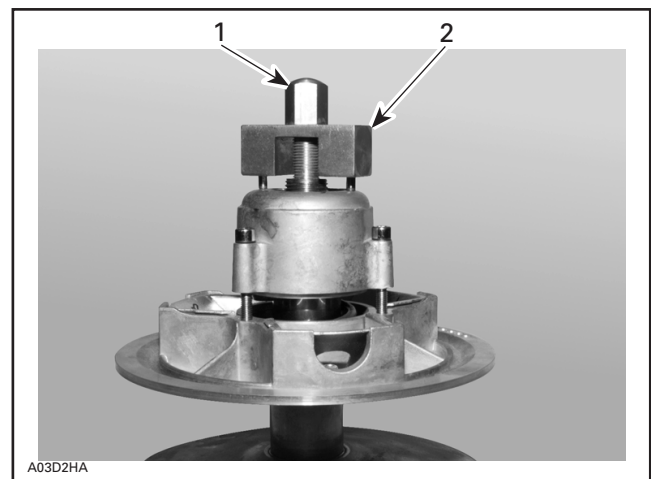
1. Alignment marks

Identify blocks **no. 1** and their respective positive positions for reassembly.



1. Identify

Install spring cover tool (P/N 529 0273 00) with clutch puller (P/N 529 0314 00) on spring cover.



1. Puller tool
2. Spring cover tool

Screw puller (hand tight) to hold spring cover and remove screws **no. 6** holding spring cover.

Slowly unscrew clutch puller to release spring pressure.

Remove spring cover **no. 10**, spring **no. 9** and washer **no. 8**.

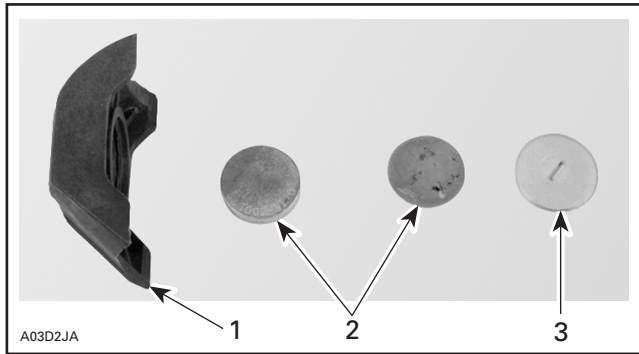
Calibration Parts

CENTRIFUGAL BLOCKS		
Part number	Description	Weight (grams)
417 1157 00	Red (push type)	38
417 1181 00	Black (screw type)	39.6
417 1143 00	Red (screw type)	41.8

CALIBRATION WEIGHTS		
Part number	Description	Weight (grams)
417 1144 00 (pkg of 10)	Screw type	3.4
417 1204 00 (pkg of 3)	Screw type (= 6 of 417 1144 00)	21
417 1158 00 (pkg of 6)	Push type	1.8
417 1145 00 (pkg of 3)	Capsule screw type	1.65

CLUTCH SPRINGS					
P/N	Color code	Load when compressed to 62 mm (2.44 in) N (lbf)	Load when compressed to 40 mm (1.57 in) N (lbf)	Spring rate N/mm (lbf/in)	Free Length mm (in)
417 1156 00	Blue	255 (57)	507 (114)	11.45 (65.4)	86 (3.39)
417 1159 00	Turquoise	258 (58)	605 (136)	13.36 (76.3)	85 (3.35)
417 1184 00	Red/Blue on Violet	564 (127)	951 (214)	17.60 (100.5)	102 (4.02)
417 1185 00	Yellow/Green on Violet	392 (88)	888 (199)	22.5 (128.5)	82 (3.23)

These are calibration parts. Refer to TECHNICAL DATA 09-03.



1. Centrifugal blocks
2. Clutch weights
3. Capsule

CLEANING

Clean pulley faces and shaft with fine steel wool and clean dry clutch. Clean sliding half bushing with clean dry cloth.

INSPECTION

Check sliding half for excessive lateral play and fixed half shaft for scratches. Replace as required.

ASSEMBLY

Install washer **no. 8**, spring **no. 9** and spring cover **no. 10**.

Install spring cover tool and clutch puller to compress spring and position spring cover on the pulley shaft.

Secure spring cover to sliding half with screws **no. 6** and washers **no. 5** and torque to 8 to 12 N•m (80 lbf•in to 106 lbf•in).

Make sure to install blocks at their original position and with their curved end toward governor cup.

Install governor cup **no. 11**.

Install washer **no. 12** and nut **no. 13**.

Tighten nut **no. 13** to 128 N•m (95 lbf•ft).

INSTALLATION

Torque screw to 90 to 100 N•m (66 to 74 lbf•ft).

Install drive belt and belt guard.

Raise and block the rear of the vehicle and support it with a mechanical stand.

◆ WARNING

Ensure that the track is free of particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track. Ensure nobody is standing near the vehicle.

Accelerate the vehicle at low speed (maximum 30 km/h (20 MPH)) and apply the brake, repeat 5 times.

Recheck the torque of 90 to 100 N•m (66 to 74 lbf•ft).

◆ WARNING

After 10 hours of operation the transmission system of the vehicle must be inspected to ensure the retaining screw is properly torqued.

	VEHICLE MODEL		SKANDIC 380	TOURING E, FORMULA S	TOURING E LT	
	ENGINE TYPE		377	377	377	
	Chain Drive Ratio		21/44	21/44	21/44	
	Chain	Pitch	in 3/8	3/8	3/8	
		Type/Links Qty/Plates Qty		Silent/72/11	Silent/72/11	Silent/72/11
	Drive Pulley	Type of Drive Pulley		Bombardier Lite	Bombardier Lite	Bombardier Lite
		Ramp Identification		N.A.	N.A.	N.A.
		Weight P/N (Qty per block) Block P/N		417 1204 00 (1), 417 1145 00 (1) 417 181 00	417 1204 00 (1), 417 1145 00 (1) 417 181 00	417 1204 00 (1), 417 1145 00 (1) 417 181 00
		Spring Color		Yellow/Green	Red/Blue	Yellow/Green
		Spring Length ± 1.5 mm (± 0.060 in)		82 (3.23)	102 (4.02)	82 (3.23)
		Clutch Engagement ± 200 RPM		2900	3100	2900
	Driven Pulley Spring Preload ± 0.7 kg (± 1.5 lb)		4.8 (10.6)	4.8 (10.6)	4.8 (10.6)	
	Cam Angle Degree		44°	44°	44°	
	Pulley Distance Z (+0, -1) mm ((+0, -1/32) in)		25.5 (1)	25.5 (1)	25.5 (1)	
	Offset	X	± 0.4 mm (± 1/64 in)	33.4 (1-5/16)	33.4 (1-5/16)	33.4 (1-5/16)
		Y - X	MIN. MAX.	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)
	Drive Belt Part Number (P/N)		415 0606 00	415 0606 00	415 0606 00	
	Drive Belt Width (new) ①		mm 34.7 (in) (1-3/8)	34.7 (1-3/8)	34.7 (1-3/8)	
	Drive Belt Adjustment	Deflection	± 5 mm (± 13/64 in)	32 (1-1/4)	32 (1-1/4)	32 (1-1/4)
		Force ②	kg 11.3 (lbf) (25)	11.3 (25)	11.3 (25)	
	Track	Width	cm 38.1 (in) (15)	38.1 (15)	38.1 (15)	
			Length	cm 345 (in) (136)	307 (121)	345 (136)
		Adjustment	Deflection	mm 40 - 55 (in) (1-9/16 - 2-5/32)	40 - 55 (1-9/16 - 2-5/32)	40 - 55 (1-9/16 - 2-5/32)
			Force ③	kg 7.3 (lbf) (16)	7.3 (16)	7.3 (16)
	Suspension Type		Track	Slide	Slide	
			Ski	DSA	DSA	
	Length		cm 294 (in) (115.7)	272.5 (107.3)	292 (115)	
	Width		cm 108 (in) (42.5)	115.6 (45.5)	115.6 (45.5)	
	Height		cm 122 (in) (48.0)	Touring: 122 (48.0) Formula: 112 (44.1)	122 (48.0)	
	Ski Stance		cm 94 (in) (37)	101.6 (40)	101.6 (40)	
	Mass (dry)		kg 214 (lb) (471)	Touring: 204 (449) Formula: 195 (430)	205 (452)	
	Ground Contact Area		cm² 7227 (in²) (1120)	6503 (1008)	7227 (1120)	
	Ground Contact Pressure		kPa 2.90 (PSI) (421)	Touring: 3.08 (.447) Formula: 2.94 (.426)	2.78 (.403)	
	Frame Material		Aluminum	Aluminum	Aluminum	
	Bottom Pan Material		Polyethylene	Polyethylene	Polyethylene	
	Cab Material		RRIM Polyurethane	RRIM Polyurethane	RRIM Polyurethane	
	Battery V (A•h)		N.A.	Touring: 12 (22) Formula: N.A.	12 (22)	
	Headlight W		H4 60/55	H4 60/55	H4 60/55	
	Taillight and Stoplight W		8/27	8/27	8/27	
	Tachometer and Speedometer Bulb W		2 x 3	5	5	
	Fuel and Temperature Gauge Bulb W		N.A.	N.A.	N.A.	
	Fuse	Starter Solenoid A	N.A.	Touring: 30 Formula: N.A.	30	
Tachometer A		N.A.	N.A.	N.A.		
	Fuel Tank L 40 (U.S. gal) (10.6)		40 (10.6)	40 (10.6)		
	Chaincase/Gearbox mL 250 (U.S. oz) (8.5)		250 (8.5)	250 (8.5)		
	Cooling System L (U.S. oz)		N.A.	N.A.	N.A.	
	Injection Oil Reservoir L 2.55 (U.S. oz) (86)		2.55 (86)	2.55 (86)	2.55 (86)	

- ① Minimum allowable width may not be less than 3.0 mm (1/8 in) of new drive belt.
- ② Force applied midway between pulleys to obtain specified deflection.
- ③ Force or downward pull applied to track to obtain specified tension deflection.

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SNOWMOBILES



SERVICE
Bulletin

No. **97-2**

Date: July 16, 1996

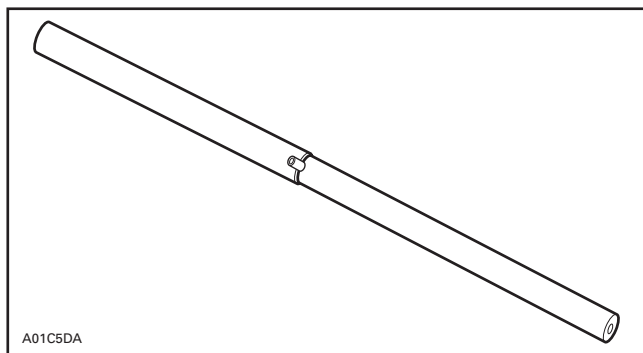
SUBJECT: Choke Plunger Tool

YEAR	MODEL NAME	MODEL NUMBER	SERIAL NUMBER
1997	SKANDIC* 380/500/WT/SWT	1120/1121/1122/1117 1118/1119/1134/1135 1189/1136/1137/1190	ALL
1997	MACH* 1	1177/1178/1179/1180 1181/1182/1183/1184 1185	ALL
1997	MX-Z* 440 F	1171/1172/1173	ALL
1997	FORMULA* III/III LT	1148/1149/1150/1151 1152/1153	ALL
1997	FORMULA* S/SL	1108/1109/1106/1107	ALL
1997	TOURING* SLE/LE/E/ELT	1110/1111/1112/1113 1114/1115/1116/1186	ALL
1996	FORMULA* III/III LT	1076/1077/1093/1100 1101/1102	ALL
1996	FORMULA* S/SL	1523/1541/1521/1522 1540	ALL
1996	TOURING* SLE/LE	1524/1525/1526/1527 1528/1529	ALL
1996	SKANDIC* 500/WT	1531/1532/1533/1537 1539	ALL
1995	FORMULA* III	1038/1039	ALL
1995	SKANDIC* WT MOUNTAIN* SP	1515/1516	ALL

A new mandatory tool is now available. This tool is used to adjust the height of choke plunger.

Tool will be automatically shipped and charged to the dealer's account.

DESCRIPTION	P/N
CHOKE PLUNGER TOOL	529 0321 00



CHOKE PLUNGER TOOL

PROCEDURE

Remove pulley guard.

Remove air silencer.

Set choke lever to fully opened position.



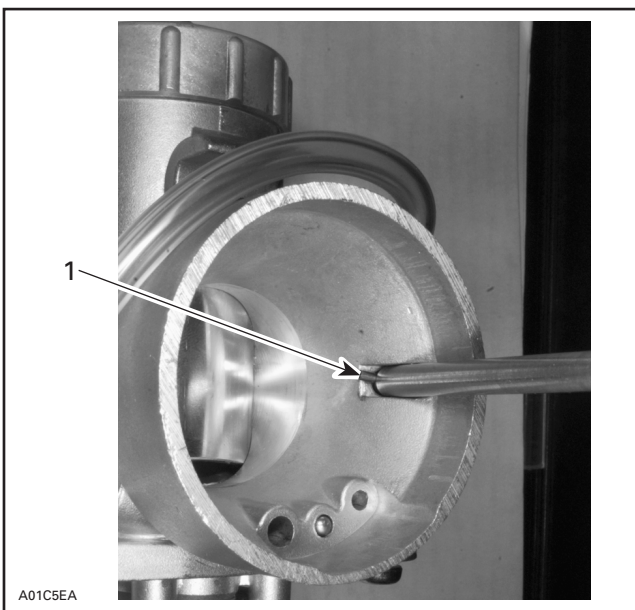
CHOKE LEVER—FULLY OPENED POSITION

Insert choke plunger tool into choke air inlet of each carburetor.

▼ CAUTION

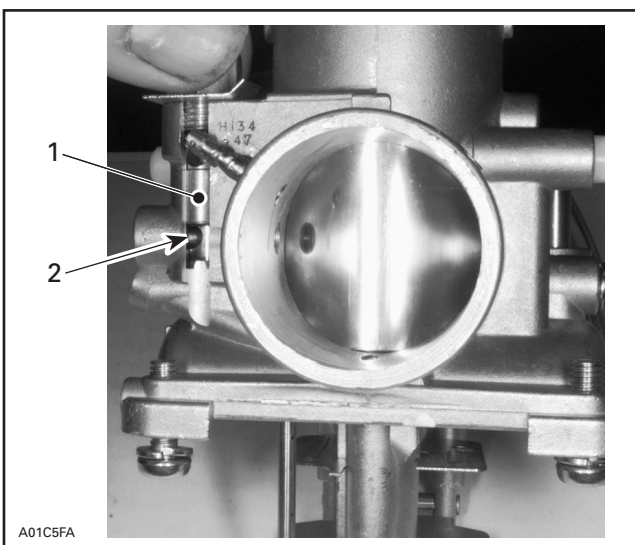
Make sure that tool stopper is properly lean on venturi recess. this will ensure that tool tip is properly seated under choke plunger, as shown on the next photos.

NOTE: Choke plunger tool can be used both sides depending on carburetor type. Use larger diameter for Mikuni 38 mm and smaller diameter for Mikuni 34 mm.



AIR SILENCER SIDE SHOWN

1. Tool stopper properly lean on venturi recess

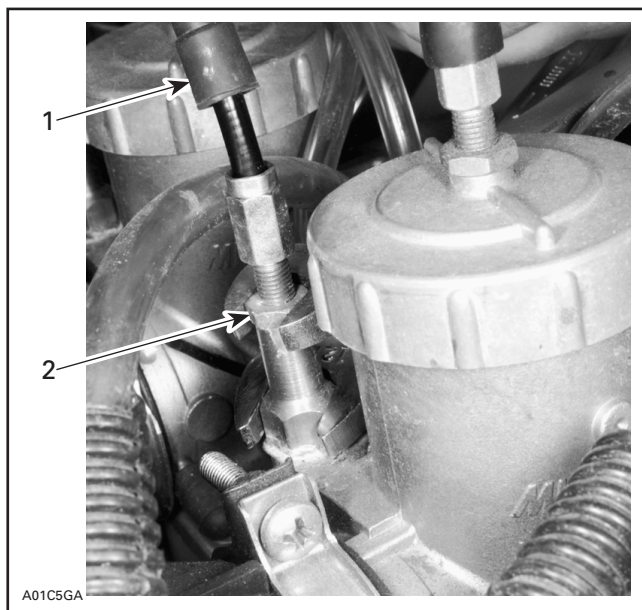


ENGINE SIDE SHOWN (CUTAWAY)

1. Choke plunger
2. Tool properly seated under choke plunger

If tool tip does not seat under choke plunger, adjust as follows:

Lift up protector cap and loosen choke cable lock nut, as shown in the next photo.

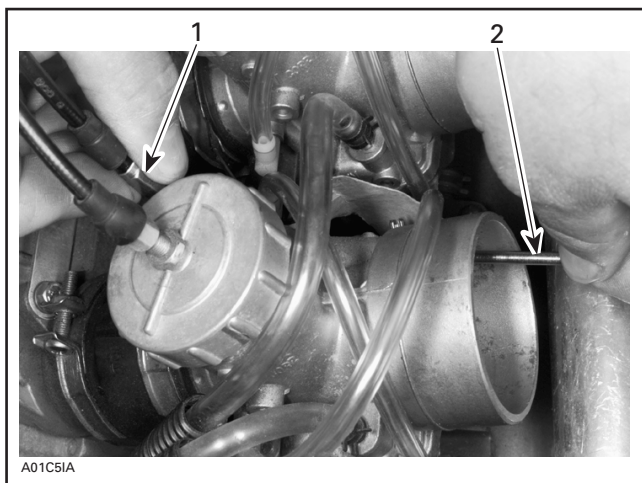


1. Lift up protector cap
2. Loosen lock nut

Set choke lever to fully open position.

Turn choke cable adjustment nut by hand until tool properly seats under choke plunger.

NOTE: A light pressure should be needed to position tool under plunger.



1. Choke cable adjustment nut
2. Choke plunger tool

Tighten choke cable lock nut and reinstall protector cap.

Set choke lever to close and open positions and ensure that tool properly seats under plunger **only** when lever is set to fully open position.

Set choke lever to close position and, by pulling and pushing choke lever, make sure there is no tension on cable (free play).

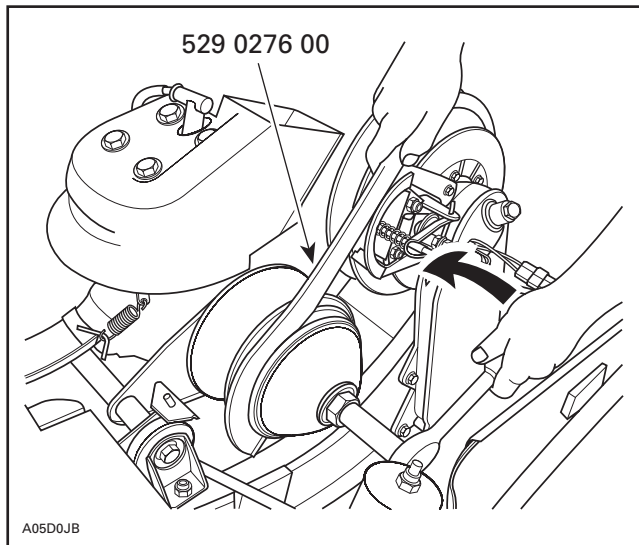


CHOKE LEVER—CLOSED POSITION

Reinstall air silencer and pulley guard.

REMOVAL

Retain drive pulley with clutch holder tool (P/N 529 0276 00).



TYPICAL

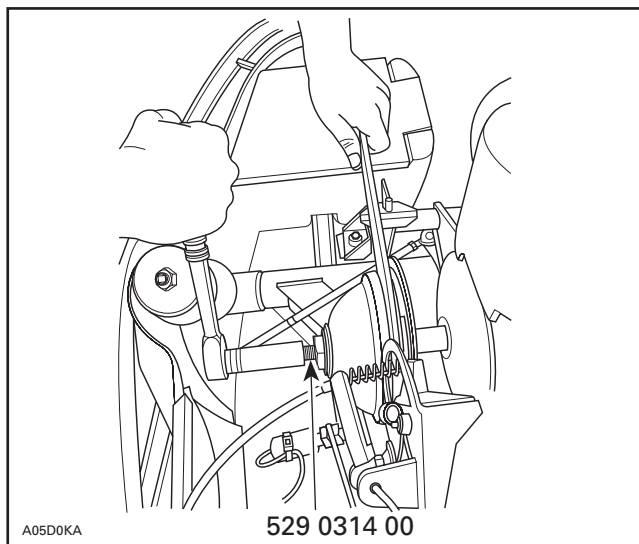
Remove retaining screw **no. 15** and lock washer **No. 14**.

Insert drive pulley puller (P/N 529 0314 00) and tighten to release pulley.

Remove drive pulley from vehicle.

◆ WARNING

Never use an impact wrench to remove or install the drive pulley.

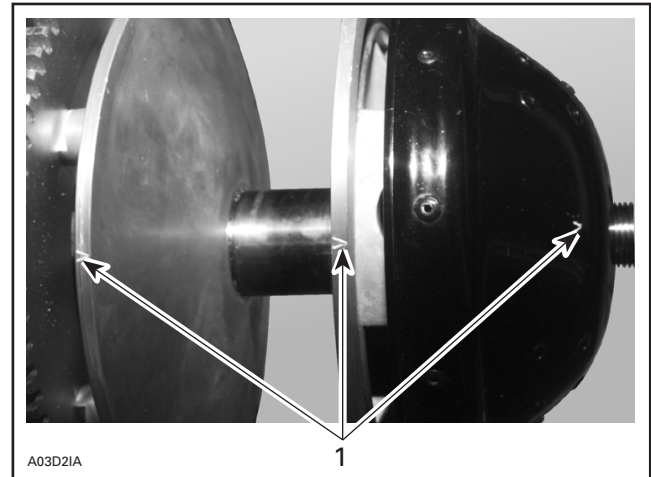


TYPICAL

DISASSEMBLY

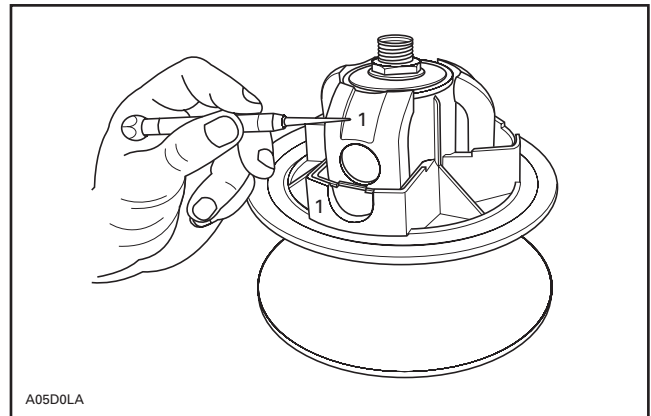
Unscrew nut **no. 13**. Remove washer.

Check for alignment marks for proper indexing at reassembly.



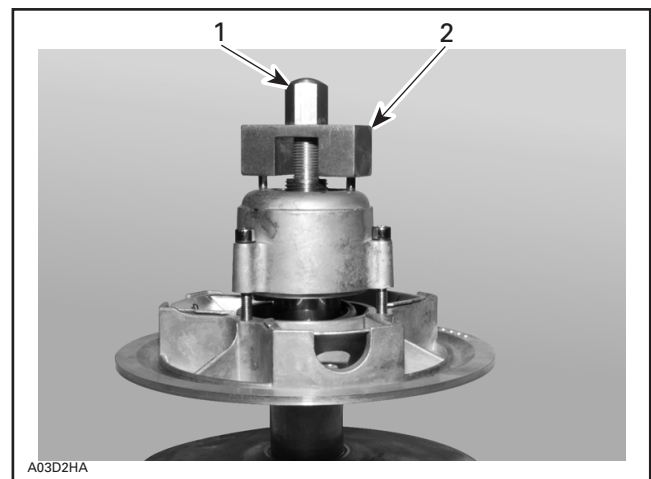
1. Alignment marks

Identify blocks **no. 1** and their respective positive positions for reassembly.



1. Identify

Install spring cover tool (P/N 529 0273 00) with clutch puller (P/N 529 0314 00) on spring cover.



1. Puller tool
2. Spring cover tool

Screw puller (hand tight) to hold spring cover and remove screws **no. 6** holding spring cover.

Slowly unscrew clutch puller to release spring pressure.

Remove spring cover **no. 10**, spring **no. 9** and washer **no. 8**.

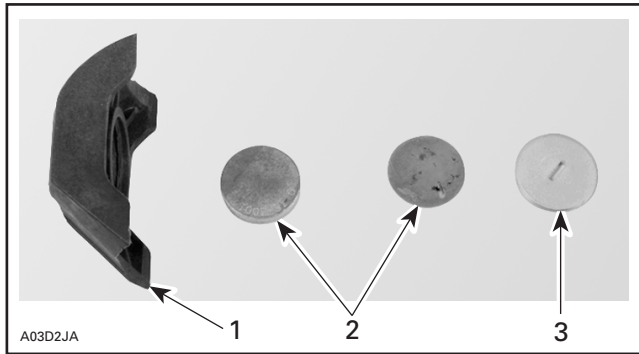
Calibration Parts

CENTRIFUGAL BLOCKS		
Part number	Description	Weight (grams)
417 1157 00	Red (push type)	38
417 1181 00	Black (screw type)	39.6
417 1143 00	Red (screw type)	41.8

CALIBRATION WEIGHTS		
Part number	Description	Weight (grams)
417 1144 00 (pkg of 10)	Screw type	3.4
417 1204 00 (pkg of 3)	Screw type (= 6 of 417 1144 00)	21
417 1158 00 (pkg of 6)	Push type	1.8
417 1145 00 (pkg of 3)	Capsule screw type	1.65

CLUTCH SPRINGS					
P/N	Color code	Load when compressed to 62 mm (2.44 in) N (lbf)	Load when compressed to 40 mm (1.57 in) N (lbf)	Spring rate N/mm (lbf/in)	Free Length mm (in)
417 1156 00	Blue	255 (57)	507 (114)	11.45 (65.4)	86 (3.39)
417 1159 00	Turquoise	258 (58)	605 (136)	13.36 (76.3)	85 (3.35)
417 1184 00	Red/Blue on Violet	564 (127)	951 (214)	17.60 (100.5)	102 (4.02)
417 1185 00	Yellow/Green on Violet	392 (88)	888 (199)	22.5 (128.5)	82 (3.23)

These are calibration parts. Refer to TECHNICAL DATA 09-03.



1. Centrifugal blocks
2. Clutch weights
3. Capsule

CLEANING

Clean pulley faces and shaft with fine steel wool and clean dry clutch. Clean sliding half bushing with clean dry cloth.

INSPECTION

Check sliding half for excessive lateral play and fixed half shaft for scratches. Replace as required.

ASSEMBLY

Install washer **no. 8**, spring **no. 9** and spring cover **no. 10**.

Install spring cover tool and clutch puller to compress spring and position spring cover on the pulley shaft.

Secure spring cover to sliding half with screws **no. 6** and washers **no. 5** and torque to 8 to 12 N•m (80 lbf•in to 106 lbf•in).

Make sure to install blocks at their original position and with their curved end toward governor cup.

Install governor cup **no. 11**.

Install washer **no. 12** and nut **no. 13**.

Tighten nut **no. 13** to 128 N•m (95 lbf•ft).

INSTALLATION

Torque screw to 90 to 100 N•m (66 to 74 lbf•ft).

Install drive belt and belt guard.

Raise and block the rear of the vehicle and support it with a mechanical stand.

◆ WARNING

Ensure that the track is free of particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track. Ensure nobody is standing near the vehicle.

Accelerate the vehicle at low speed (maximum 30 km/h (20 MPH)) and apply the brake, repeat 5 times.

Recheck the torque of 90 to 100 N•m (66 to 74 lbf•ft).

◆ WARNING

After 10 hours of operation the transmission system of the vehicle must be inspected to ensure the retaining screw is properly torqued.

	VEHICLE MODEL		SKANDIC 380	TOURING E, FORMULA S	TOURING E LT
	ENGINE TYPE		377	377	377
	Chain Drive Ratio		21/44	21/44	21/44
	Chain	Pitch	in 3/8	3/8	3/8
		Type/Links Qty/Plates Qty	Silent/72/11	Silent/72/11	Silent/72/11
	Drive Pulley	Type of Drive Pulley	Bombardier Lite	Bombardier Lite	Bombardier Lite
		Ramp Identification	N.A.	N.A.	N.A.
		Weight P/N (Qty per block) Block P/N	417 1204 00 (1), 417 1145 00 (1) 417 181 00	417 1204 00 (1), 417 1145 00 (1) 417 181 00	417 1204 00 (1), 417 1145 00 (1) 417 181 00
		Spring Color	Yellow/Green	Red/Blue	Yellow/Green
		Spring Length ± 1.5 mm (± 0.060 in)	82 (3.23)	102 (4.02)	82 (3.23)
		Clutch Engagement ± 200 RPM	2900	3100	2900
	Driven Pulley Spring Preload ± 0.7 kg (± 1.5 lb)		4.8 (10.6)	4.8 (10.6)	4.8 (10.6)
	Cam Angle Degree		44°	44°	44°
	Pulley Distance Z (+0, -1) mm (+0, -1/32) in		25.5 (1)	25.5 (1)	25.5 (1)
	Offset	X ± 0.4 mm (± 1/64 in)	33.4 (1-5/16)	33.4 (1-5/16)	33.4 (1-5/16)
		Y - X MIN. MAX.	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)	+ 0.5 (+ 0.020) + 1.5 (+ 0.059)
	Drive Belt Part Number (P/N)		415 0606 00	415 0606 00	415 0606 00
	Drive Belt Width (new) ①		mm 34.7 (in) (1-3/8)	34.7 (1-3/8)	34.7 (1-3/8)
	Drive Belt Adjustment	Deflection ± 5 mm (± 13/64 in)	32 (1-1/4)	32 (1-1/4)	32 (1-1/4)
		Force ②	11.3 (25)	11.3 (25)	11.3 (25)
	Track	Width	cm 38.1 (in) (15)	38.1 (15)	38.1 (15)
			Length	345 (136)	307 (121)
		Adjustment	Deflection mm 40 - 55 (in) (1-9/16 - 2-5/32)	40 - 55 (1-9/16 - 2-5/32)	40 - 55 (1-9/16 - 2-5/32)
			Force ③	7.3 (16)	7.3 (16)
	Suspension Type		Track Ski	Slide DSA	Slide DSA
		Length		cm 294 (in) (115.7)	272.5 (107.3)
Width		cm 108 (in) (42.5)	115.6 (45.5)	115.6 (45.5)	
Height		cm 122 (in) (48.0)	Touring: 122 (48.0) Formula: 112 (44.1)	122 (48.0)	
Ski Stance		cm 94 (in) (37)	101.6 (40)	101.6 (40)	
Mass (dry)		kg 214 (lb) (471)	Touring: 204 (449) Formula: 195 (430)	205 (452)	
Ground Contact Area		cm² 7227 (in²) (1120)	6503 (1008)	7227 (1120)	
Ground Contact Pressure		kPa 2.90 (PSI) (.421)	Touring: 3.08 (.447) Formula: 2.94 (.426)	2.78 (.403)	
Frame Material		Aluminum	Aluminum	Aluminum	
Bottom Pan Material		Polyethylene	Polyethylene	Polyethylene	
Cab Material		RRIM Polyurethane	RRIM Polyurethane	RRIM Polyurethane	
	Battery V (A•h)		N.A.	Touring: 12 (22) Formula: N.A.	12 (22)
	Headlight		W H4 60/55	H4 60/55	H4 60/55
	Taillight and Stoplight		W 8/27	8/27	8/27
	Tachometer and Speedometer Bulb		W 2 x 3	5	5
	Fuel and Temperature Gauge Bulb		W N.A.	N.A.	N.A.
	Fuse	Starter Solenoid	A N.A.	Touring: 30 Formula: N.A.	30
Tachometer		A N.A.	N.A.	N.A.	
	Fuel Tank L 40 (U.S. gal) (10.6)		40 (10.6)	40 (10.6)	
	Chaincase/Gearbox mL 250 (U.S. oz) (8.5)		250 (8.5)	250 (8.5)	
	Cooling System L N.A. (U.S. oz)		N.A.	N.A.	
	Injection Oil Reservoir L 2.55 (U.S. oz) (.86)		2.55 (.86)	2.55 (.86)	

- ① Minimum allowable width may not be less than 3.0 mm (1/8 in) of new drive belt.
- ② Force applied midway between pulleys to obtain specified deflection.
- ③ Force or downward pull applied to track to obtain specified tension deflection.

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SNOWMOBILES



SERVICE
Bulletin

No. **97-3**

Date: July 18, 1996

SUBJECT: Electrical Diagrams

YEAR	MODEL NAME	MODEL NUMBER	SERIAL NUMBER
1997	TOURING* E	1115	ALL
1997	TOURING* ELT	1116/1186	ALL
1997	TOURING* LE	1112/1113/1114	ALL
1997	TOURING* SLE	1110/1111	ALL
1997	FORMULA* S	108/1109	ALL
1997	FORMULA* SL	1106/1107	ALL
1997	SKANDIC* 380	1120/1121/1122	ALL
1997	SKANDIC* 500	1123/1124/1125	ALL

This bulletin contains a list of modifications that have been made to the electric wiring diagrams of the above mentioned models.

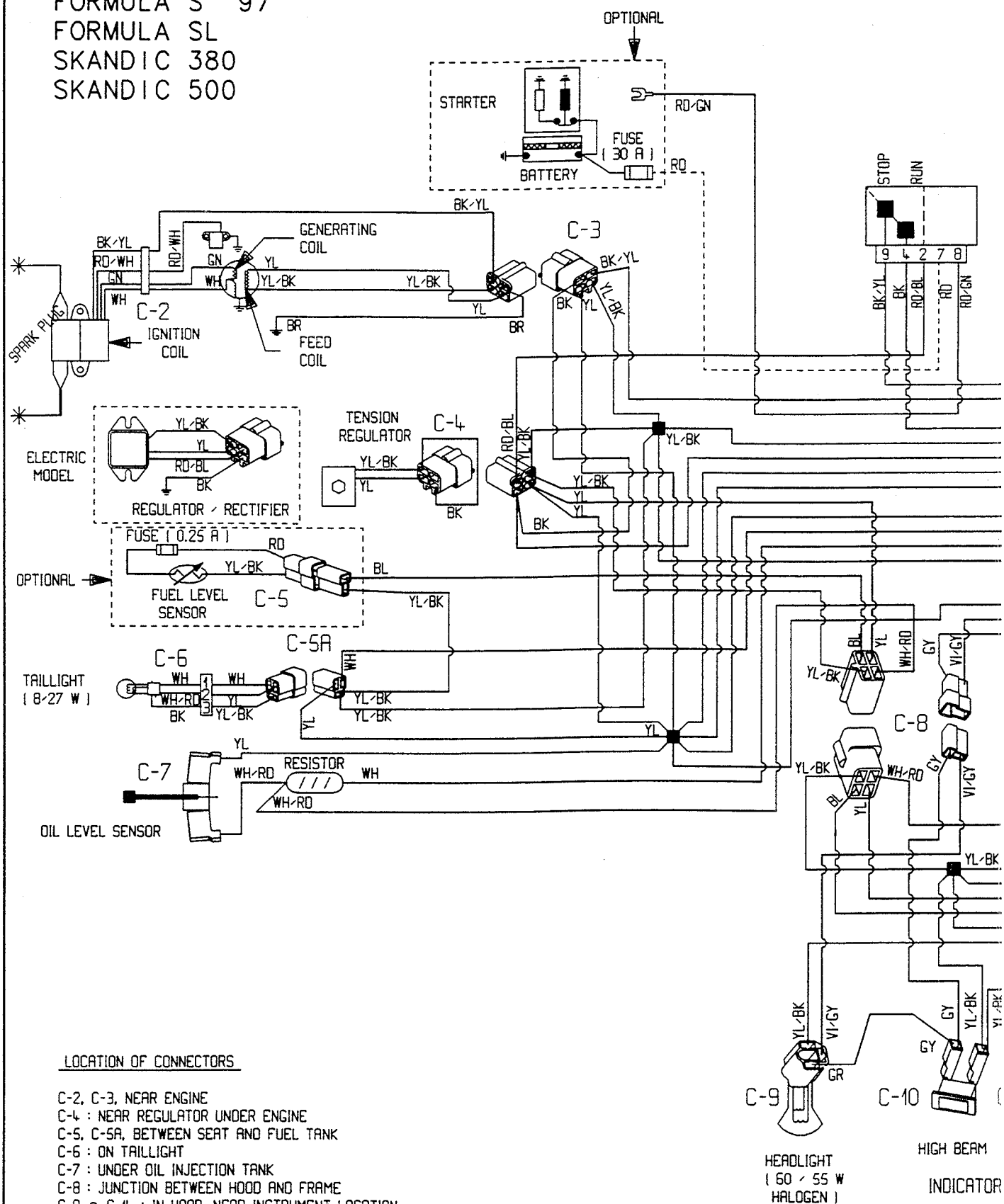
Please replace wiring diagrams, annex 2 and 3 in the 1997 *Ski-Doo Shop Manual, Vol. 1* (P/N 484 0647 00), with new wiring diagrams.

LIST OF MODIFICATIONS

The following table indicates changes made to the electrical diagrams.

DESCRIPTION	OLD WIRE COLOR	NEW WIRE COLOR
Regulator/Rectifier	GREEN wire RED wire	YELLOW/BLACK wire RED/BLUE wire
Tension Regulator (Annex 2)	BLACK wire BLACK wire to ground	YELLOW/BLACK wire BLACK wire to YELLOW/BLACK wire
Fuel Level Sensor	BLUE wire	RED with 0.25 amp fuse added
Taillight	No color identification	WHITE wire (no.1) WHITE/RED wire (no.2) BLACK wire (no.3)
Brake Light Switch	WHITE wire YELLOW wire	WHITE or YELLOW/GREEN wire YELLOW or BROWN wire

FORMULA S '97
FORMULA SL
SKANDIC 380
SKANDIC 500



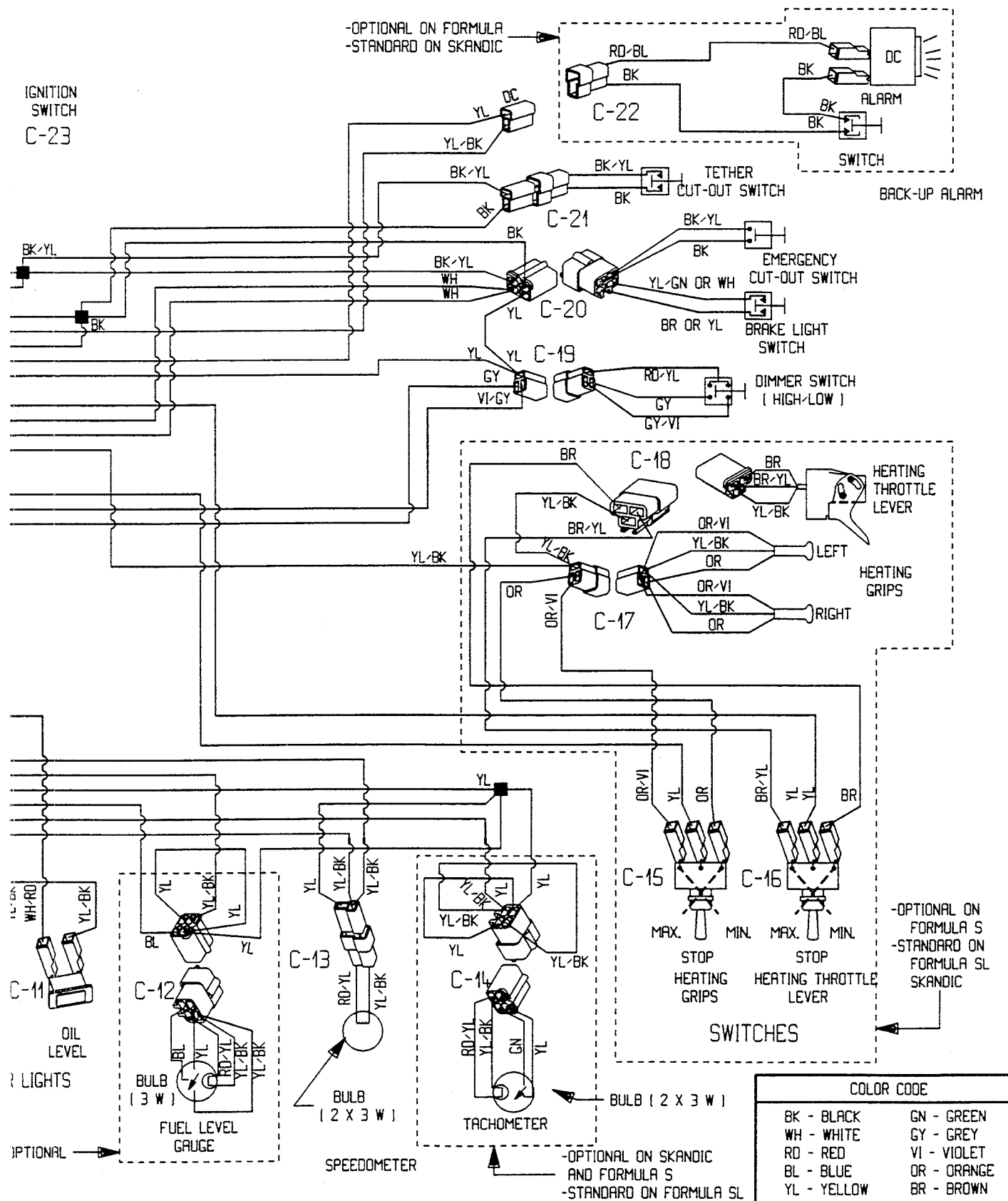
LOCATION OF CONNECTORS

- C-2, C-3, NEAR ENGINE
C-4 : NEAR REGULATOR UNDER ENGINE
C-5, C-5A, BETWEEN SEAT AND FUEL TANK
C-6 : ON TAILLIGHT
C-7 : UNDER OIL INJECTION TANK
C-8 : JUNCTION BETWEEN HOOD AND FRAME
C-9 @ C-14 : IN HOOD, NEAR INSTRUMENT LOCATION
C-15 @ C-21 : NEAR STEERING COLUMN, UNDER CONSOLE
C-22 : ABOVE CHAINCASE
C-23 : ON IGNITION SWITCH

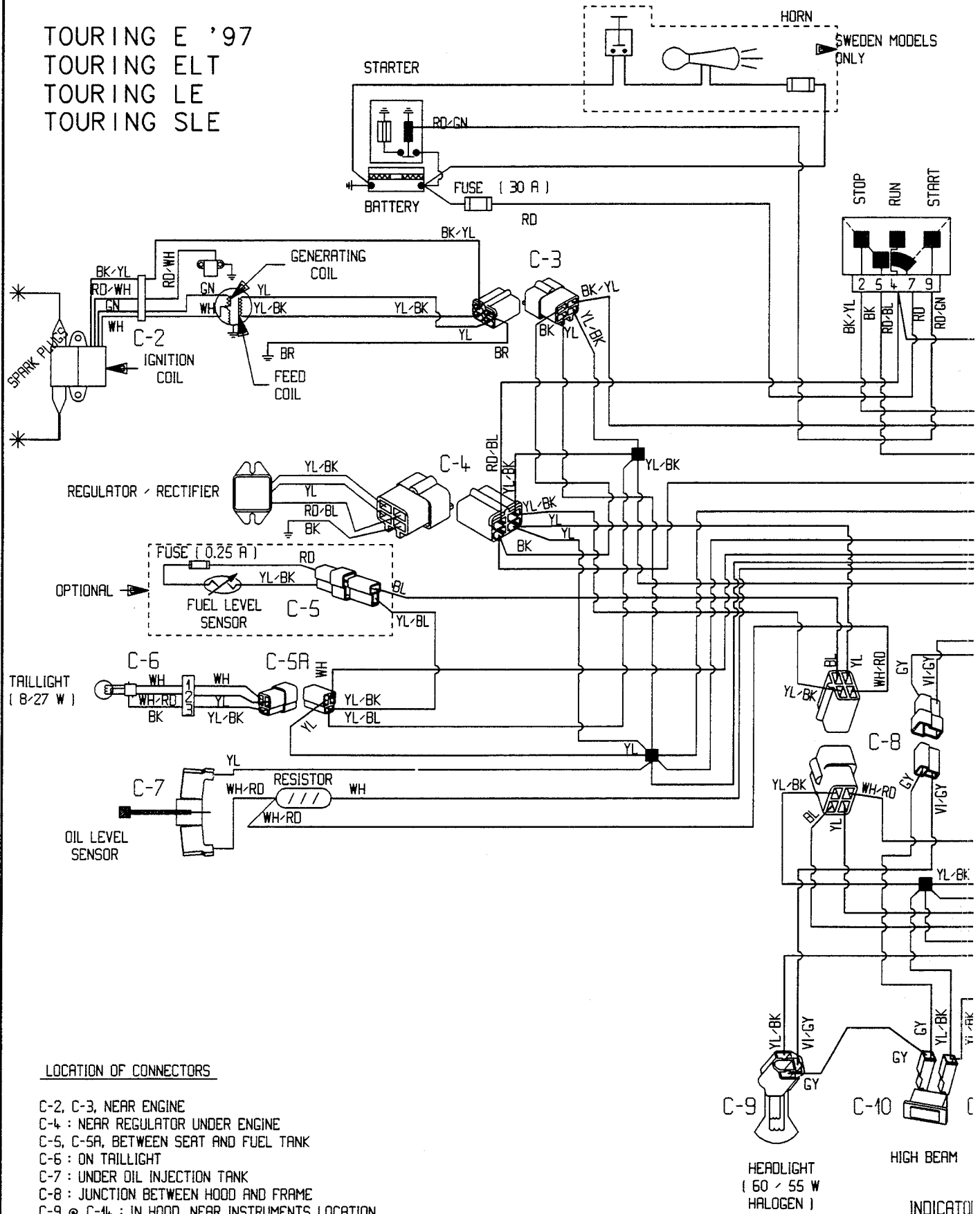
 = WELDED JOINT

WARNING:

ENSURE ALL TERMINALS ARE PROPERLY CRIMPED ON THE WIRES AND ALL CONNECTOR HOUSINGS ARE PROPERLY FASTENED.

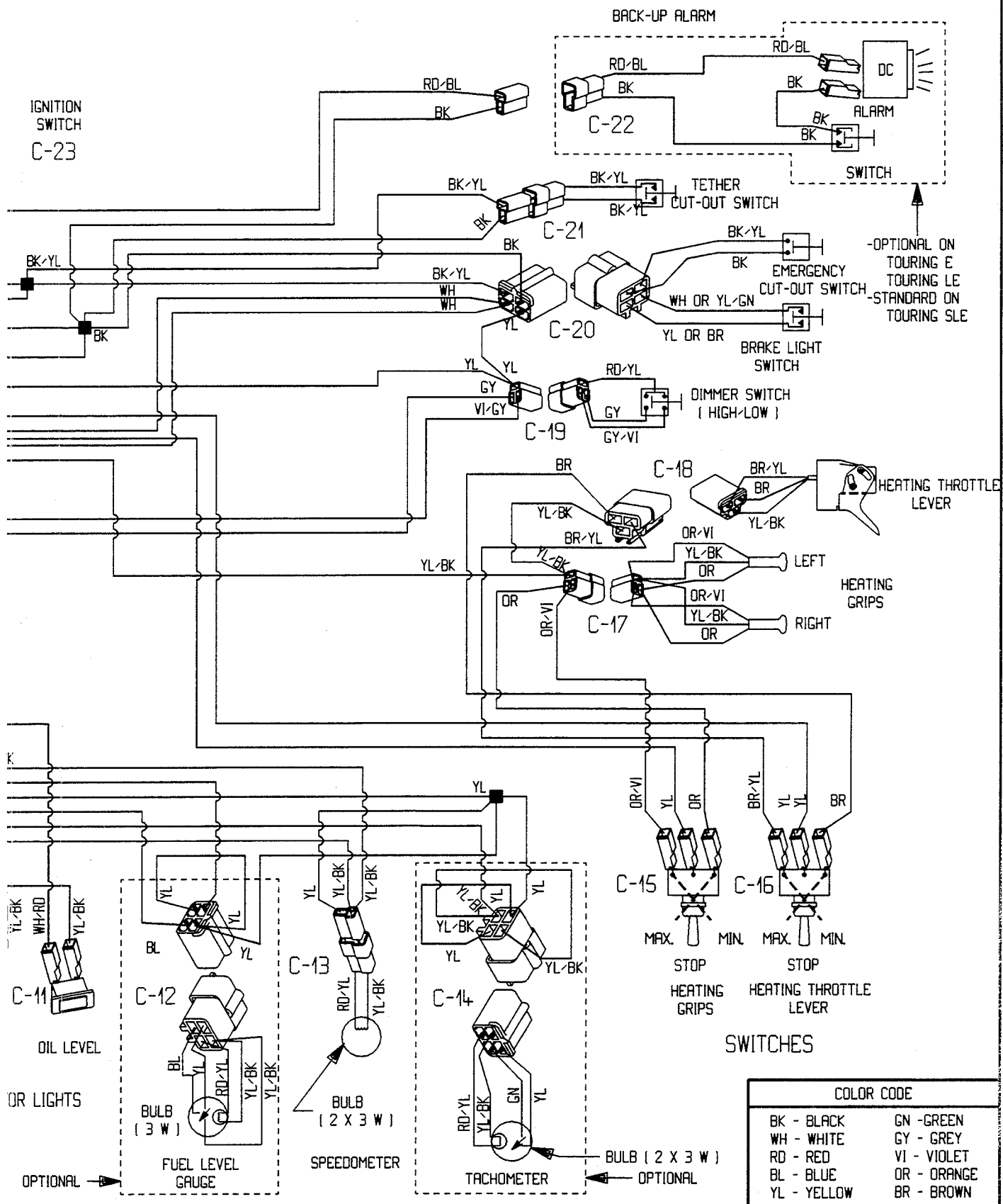


TOURING E '97
TOURING ELT
TOURING LE
TOURING SLE



◆ **WARNING :**

ENSURE ALL TERMINALS ARE PROPERLY CRIMPED ON THE WIRES AND ALL CONNECTOR HOUSINGS ARE PROPERLY FASTENED.



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SNOWMOBILES



SERVICE
Bulletin

No. **97-4**

Date: August 12, 1996

SUBJECT: Spring Chart

YEAR	MODEL NAME	MODEL NUMBER	SERIAL NUMBER
1997	ALL (Except utility models)	ALL	ALL

This bulletin is divided into 2 main sections.

Section 1, Spring Applications

Is a quick reference chart which provides authorized spring applications per Ski-Doo model. It contains the standard spring part number (in gray shading) as installed at the factory, as well as 1 softer spring and 1 harder spring recommendation.

Section 2, Spring Specifications

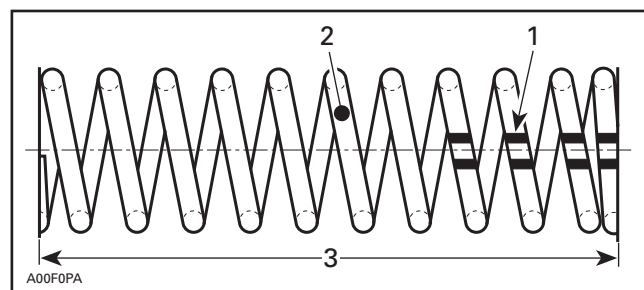
Refers to spring specifications.

The informations in this bulletin supersede all informations previously published.

Please update your *Shop Manual* by indicating the number of this bulletin in the proper section of the manual.

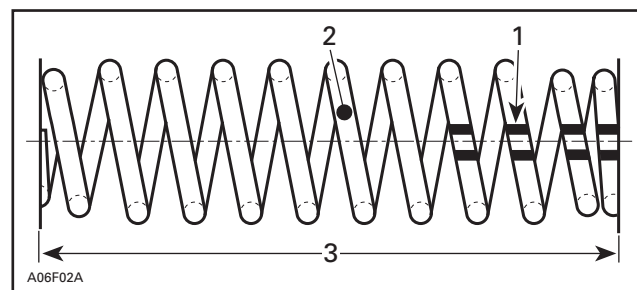
COIL SPRINGS (Compression)

Type R (Straight on Both Ends)



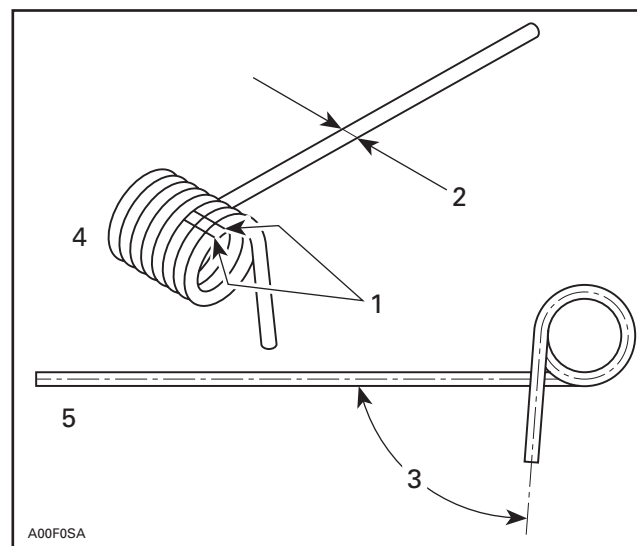
1. Color Code Stripes
2. Wire Diameter
3. Free Length

Type T (Barrel Shaped on Both Ends)



1. Color code Stripes
2. Wire Diameter
3. Free Length

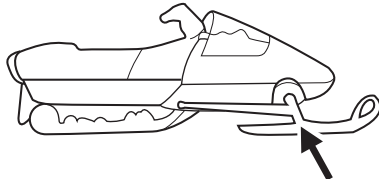
TORSION SPRINGS



1. Color Code Stripes
2. Wire Diameter
3. Opening Angle (°)
4. Left Hand (LH)
5. Right Hand (RH)

SECTION 1

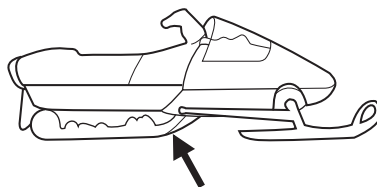
SPRING APPLICATIONS

1997		FRONT SPRINGS		1997
				
MODEL	(P/N) SOFTER SPRING	(P/N) STANDARD	(P/N) HARDER SPRING	
MACH Z	414 9744 00	414 9563 00	414 9761 00	
MACH Z LT	415 0397 00	415 0355 00	414 9563 00	
MACH 1	414 9744 00	414 9563 00	414 9761 00	
FORMULA III	414 9744 00	415 0385 00	414 9761 00	
FORMULA III LT	414 9563 00	414 9761 00	415 0397 00	
FORMULA Z	414 9563 00	414 9761 00	415 0397 00	
FORMULA 583	414 9563 00	414 9761 00	415 0397 00	
FORMULA 500 DE LUXE	414 9563 00	414 9761 00	415 0397 00	
FORMULA 500	414 9563 00	414 9761 00	415 0397 00	
FORMULA SL	414 8951 00	414 9561 00	415 0397 00	
FORMULA S	414 8951 00	414 9561 00	415 0397 00	
MX Z 670	414 9744 00	414 9563 00	414 9761 00	
MX Z 583	414 9744 00	414 9563 00	414 9761 00	
MX Z 440	414 9744 00	414 9563 00	414 9761 00	
MX Z 440 F	414 9563 00	415 0355 00	415 0397 00	
SUMMIT 670	414 9168 00	415 0356 00	415 0396 00	
SUMMIT 583	414 9168 00	415 0356 00	415 0396 00	
SUMMIT 500	414 9168 00	415 0356 00	415 0396 00	
GRAND TOURING SE	414 9563 00	415 0357 00	415 0397 00	
GRAND TOURING 580	414 9563 00	415 0358 00	415 0397 00	
GRAND TOURING 500	414 9563 00	415 0358 00	415 0397 00	
TOURING SLE	414 9563 00	415 0359 00	415 0397 00	
TOURING LE	414 9563 00	415 0359 00	415 0397 00	
TOURING E	414 9563 00	415 0359 00	415 0397 00	
TOURING E LT	414 9563 00	415 0359 00	415 0397 00	
SKANDIC 500	414 8593 00	414 9558 00	414 9686 00	
SKANDIC 380	414 8593 00	414 9558 00	414 9686 00	

1997

CENTER SPRINGS

1997

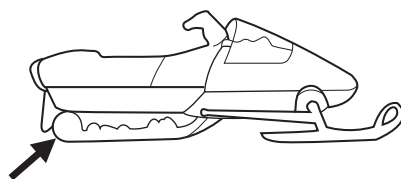


MODEL	(P/N) SOFTER SPRING	(P/N) STANDARD	(P/N) HARDER SPRING
MACH Z	414 9761 00	415 0575 00	415 0576 00
MACH Z LT	415 0706 00	415 0576 00	415 0707 00
MACH 1	414 9761 00	415 0575 00	415 0576 00
FORMULA III	414 9761 00	415 0575 00	415 0576 00
FORMULA III LT	415 0706 00	415 0576 00	415 0707 00
FORMULA Z	414 9744 00	415 0704 00	414 7713 00
FORMULA 583	414 8593 00	415 0701 00	415 0705 00
FORMULA 500 DE LUXE	414 8593 00	415 0701 00	415 0705 00
FORMULA 500	414 8593 00	415 0701 00	415 0705 00
FORMULA SL	414 9744 00	415 0699 00	414 7713 00
FORMULA S	414 9744 00	415 0699 00	414 7713 00
MX Z 670	414 9744 00	415 0703 00	414 9761 00
MX Z 583	414 9744 00	415 0703 00	414 9761 00
MX Z 440	414 9744 00	415 0703 00	414 9761 00
MX Z 440 F	414 8593 00	415 0701 00	415 0705 00
SUMMIT 670	415 0701 00	415 0705 00	415 0710 00
SUMMIT 583	415 0701 00	415 0705 00	415 0710 00
SUMMIT 500	415 0701 00	415 0705 00	415 0710 00
GRAND TOURING SE	415 0706 00	415 0576 00	415 0707 00
GRAND TOURING 580	414 9761 00	415 0706 00	415 0576 00
GRAND TOURING 500	415 0701 00	415 0705 00	415 0710 00
TOURING SLE	415 0701 00	415 0705 00	415 0710 00
TOURING LE	414 9744 00	415 0699 00	414 7713 00
TOURING E	414 9744 00	415 0699 00	414 7713 00
TOURING E LT	414 9744 00	415 0699 00	414 7713 00
SKANDIC 500	414 9744 00	414 9745 00	414 7713 00
SKANDIC 380	414 9744 00	414 9745 00	414 7713 00

1997

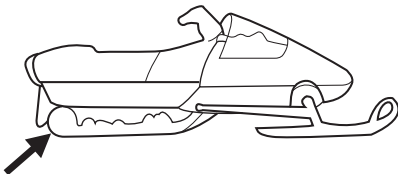
REAR SPRINGS

1997



MODEL	(P/N) SOFTER SPRING	(P/N) STANDARD	(P/N) HARDER SPRING
MACH Z	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
MACH Z LT	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
MACH 1	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA III	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA III LT	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA Z	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH
FORMULA 583	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA 500 DE LUXE	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 415 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA 500	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
FORMULA SL	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH
FORMULA S	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH
MX Z 670	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
MX Z 583	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
MX Z 440	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
MX Z 440 F	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH
SUMMIT 670	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH
SUMMIT 583	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH
SUMMIT 500	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH

LH= Left Hand RH=Right Hand

1997		REAR SPRINGS		1997
				
MODEL	(P/N) SOFTER SPRING	(P/N) STANDARD	(P/N) HARDER SPRING	
GRAND TOURING SE	414 9436 00 LH 414 9435 00 RH	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	
GRAND TOURING 580	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 414 0607 00 RH	
GRAND TOURING 500	415 0106 00 LH 415 0106 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	
TOURING SLE	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	
TOURING LE	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	
TOURING E	Not Applicable	414 8663 00 LH 414 8662 00 RH	414 9436 00 LH 414 9435 00 RH	
TOURING E LT	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	
SKANDIC 500	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	
SKANDIC 380	415 0106 00 LH 415 0105 00 RH	414 9443 00 LH 414 9442 00 RH	415 0608 00 LH 415 0607 00 RH	

LH= Left Hand RH=Right Hand

SECTION 2

SPRING SPECIFICATIONS

COIL SPRINGS SPECIFICATIONS 1997

P/N	TYPE	SPRING RATE (lbs/in) $\pm$ 10	FREE LENGTH (mm) $\pm$ 3	WIRE DIAMETER (mm) $\pm$.05	COLOR CODE STRIPES	COLOR OF SPRING
291 000 794	R	100	215	6.65	PI/WH	BLACK
414 7713 00	R	135	272.5	8.41	BK/BK	SAFARI RED
414 7823 00	R	225	165	8.41	BK	SAFARI RED
414 7882 00	R	150	272.5	8.41	BK/YL	SAFARI RED
414 7894 00	R	135	272.5	8.41	BK/BK	AQUA BLUE
414 7977 00	R	135	272.5	8.41	BK/BK	FLAME RED
414 7978 00	R	135	272.5	8.41	BK/BK	PEARL BLUE
414 7979 00	R	135	272.5	8.41	BK/BK	VIOLET
414 8030 00	R	65	408	6.17	BL/OR	BLACK
414 8088 00	R	120	272.5	7.77	BK/OR	SAFARI RED
414 8093 00	R	160	213.1	7.77	WH	BLACK
414 8095 00	R	150 $\pm$ 5	256.8	7.92	BK	YELLOW
414 8101 00	R	125 $\pm$ 5	256.8	7.49	WH	YELLOW
414 8593 00	R	90 $\pm$ 7	239	7.14	BK/WH	YELLOW
414 8616 00	R	135	272.5	8.41	BK/BK	YELLOW
414 8690 00	R	125 $\pm$ 5	256.8	7.49	WH	SAFARI RED
414 8716 00	R	150 $\pm$ 5	256.8	7.92	WH	VIOLET
414 8778 00	R	160 $\pm$ 7	223.1	7.92	WH/WH	BLACK
414 8910 00	R	100 $\pm$ 7	260	7.14	WH/BK	SAFARI RED
414 8938 00	R	185 $\pm$ 7	213	8.41	GN/GN	YELLOW
414 8951 00	R	100	255	7.14	PI/GD	BLACK
414 9168 00	R	90 $\pm$ 7	239	7.14	RD	FIREFLY GREEN
414 9281 00	R	110	256.8	7.77	GD/BK	SAFARI RED
414 9286 00	R	100 $\pm$ 7	260	7.14	GD	RASPBERRY
414 9293 00	R	110	256.8	7.77	BK/RD	PEARL BLUE
414 9295 00	R	100 $\pm$ 7	260	7.14	RD/YL	PEARL BLUE
414 9402 00	R	140 $\pm$ 7	223	7.77	WH/GN	BLACK

SPRING COLOR CODES									
BK=BLACK	BL=BLUE	GD=GOLD	GN=GREEN	OR=ORANGE	PI=PINK	RD=RED	SI=SILVER	WH=WHITE	YL=YELLOW

COIL SPRINGS SPECIFICATIONS 1997

P/N	TYPE	SPRING RATE (lbs/in) $\pm$ 10	FREE LENGTH (mm) $\pm$ 3	WIRE DIAMETER (mm) $\pm$.05	COLOR CODE STRIPES	COLOR OF SPRING
414 9558 00	R	100	239	7.14	RD/GN/GN	BLACK
414 9559 00	R	125 $\pm$ 5	256.8	7.49	BK/RD	NEON GREEN
414 9560 00	R	125 $\pm$ 5	256.8	7.49	BL/RD	BLACK
414 9561 00	R	125 $\pm$ 5	256.8	7.49	BL/BL/BL	VIPER RED
414 9562 00	R	115	242	7.77	PI/BL	BLACK
414 9563 00	R	100	265	7.14	PI/WH/BL	YELLOW
414 9564 00	R	100 $\pm$ 7	260	7.14	RD/YL/BL	ROYAL VIOLET
414 9565 00	R	100 $\pm$ 7	260	7.14	BL/YL/GN	VIPER RED
414 9568 00	R	100 $\pm$ 7	260	7.14	RD/YL	NEON GREEN
414 9686 00	R	125	235	7.49	RD	NEON GREEN
414 9744 00	R	90	265	7.14	GN/OR	BLACK
414 9745 00	R	115	265	7.49	OR/WH	BLACK
414 9760 00	R	135	242	8.25	PI/GN	BLACK
414 9761 00	R	125	262	7.92	PI/YL	VIPER RED
415 0129 00	R	115	260	7.92	PI/YL	BLACK
415 0137 00	R	200	230	8.71	PI/OR/YL	BLACK
415 0138 00	R	150	264	7.77	BK/PI/WH	NEON GREEN
415 0139 00	R	150	264	7.77	PI/WH/YL	ROYAL VIOLET
415 0142 00	R	150	264	7.77	GN/OR/BL	PEARL BLUE
415 0145 00	R	150	264	7.77	BK/WH/OR	VIPER RED
415 0206 00	R	125	203.2	7.77	4 Green lines	BLACK
415 0207 00	R	150	203.2	7.92	4 Red lines	BLACK
415 0208 00	R	70	152	5.73	4 Blue lines	BLACK
415 0209 00	R	150	190.5	8.29	4 Pink lines	BLACK
415 0355 00	R	125	262	7.92	SI/GN	YELLOW
415 0356 00	R	125	235	7.49	OR	FRENCH BLUE
415 0357 00	R	125	262	7.92	SI/OR	JAY BLUE
415 0358 00	R	125	262	7.92	SI/PI	FIR GREEN
415 0359 00	R	125	262	7.92	YL	BLACK
415 0385 00	R	100	265	7.14	SI/GD	VIPER RED

SPRING COLOR CODES	
BK=BLACK BL=BLUE GD=GOLD GN=GREEN OR=ORANGE PI=PINK RD=RED SI=SILVER WH=WHITE YL=YELLOW	

COIL SPRINGS SPECIFICATIONS 1997

P/N	TYPE	SPRING RATE (lbs/in) $\pm$ 10	FREE LENGTH (mm) $\pm$ 3	WIRE DIAMETER (mm) $\pm$.05	COLOR CODE STRIPES	COLOR OF SPRING
415 0396 00	R	150	235	8.41	GN	BLACK
415 0397 00	R	150	258	8.71	PI	BLACK
415 0398 00	R	140	257	8.71	SI	BLACK
415 0399 00	R	150	238	8.71	SI/WH	BLACK
415 0400 00	R	130	250	8.25	SI/SI	BLACK
415 0401 00	R	215	218	9.19	OR/PI	BLACK
415 0575 00	R	160	260	8.71	RD/GD	BLACK
415 0582 00	R	115	270	7.92	GN/GD	BLACK
415 0696 00	R	300	170	9.50	YL/BK/YL	BLACK
503 1007 00	R	65	290	6.35	BL/YL	BLACK
414 8091 00	T	125 $\pm$ 5	274	7.92	GD	YELLOW
414 8155 00	T	135	259	7.77	BK/WH	VIOLET
414 8528 00	T	100 $\pm$ 7	279	7.92	RD	YELLOW
414 8713 00	T	125 $\pm$ 5	274	7.92	GD	SAFARI RED
414 8715 00	T	125 $\pm$ 5	274	7.92	GD	VIOLET
414 8941 00	T	112 $\pm$ 7	279.4	8.41	BK/GN	YELLOW
414 9169 00	T	100 $\pm$ 7	279	7.92	BK/WH	FIREFLY GREEN
414 9254 00	T	100 $\pm$ 7	279	7.92	WH/BK	SAFARI RED
414 9260 00	T	100 $\pm$ 7	279	7.49	BK	RASPBERRY
414 9269 00	T	110	279.4	7.77	GN/YL	SAFARI RED
414 9271 00	T	110	279.4	7.77	BK/YL	PEARL BLUE
414 9275 00	T	100 $\pm$ 7	279	7.92	RD/WH	PEARL BLUE
414 9886 00	T	100 $\pm$ 7	279	7.49	PI/PI	BLACK
414 9986 00	T	100 $\pm$ 7	279	7.49	BK/PI	SAFARI RED
415 0069 00	T	150 $\pm$ 7	272.5	8.41	BK/YL	FIREFLY GREEN
415 0070 00	T	135 $\pm$ 7	272.5	8.41	BK/BK	FIREFLY GREEN
415 0143 00	T	150	264	7.77	GN/OR/PI	CAN-AM RED
415 0575 00	T	160	264	8.71	RD/GD	BLACK
415 0576 00	T	180	260	9.52	BL/GD	BLACK
415 0699 00	T	115	265	7.49	SI/YL/YL	BLACK

SPRING COLOR CODES	
BK=BLACK BL=BLUE GD=GOLD GN=GREEN OR=ORANGE PI=PINK RD=RED SI=SILVER WH=WHITE YL=YELLOW	

COIL SPRINGS SPECIFICATIONS 1997

P/N	TYPE	SPRING RATE (lbs/in) ± 10	FREE LENGTH (mm) ± 3	WIRE DIAMETER (mm) $\pm .05$	COLOR CODE STRIPES	COLOR OF SPRING
415 0700 00	T	135	242	8.25	WH/YL/YL	BLACK
415 0701 00	T	115	242	7.92	GD/YL/YL	BLACK
415 0702 00	T	115	270	7.92	PI/YL/YL	BLACK
415 0703 00	T	100	264	7.49	OR/YL/YL	BLACK
415 0704 00	T	115	270	8.25	GN/YL/YL	BLACK
415 0705 00	T	135	242	8.41	BL/YL/YL	BLACK
415 0706 00	T	160	264	9.19	RD/YL/YL	BLACK
415 0707 00	T	200	263	9.52	YL/YL/YL	BLACK
415 0710 00	T	150	242	8.71	SI/RD/YL	BLACK
503 1272 00	T	170	258	8.71	BL/GN	BLACK
503 1354 00	T	250	300	10.31	RD/OR	BLACK

SPRING COLOR CODES	
BK=BLACK BL=BLUE GD=GOLD GN=GREEN OR=ORANGE PI=PINK RD=RED SI=SILVER WH=WHITE YL=YELLOW	

TORSION SPRINGS SPECIFICATIONS 1997

P/N	WIRE DIAMETER (mm)	OPENING ANGLE $\pm 7^\circ$	COLOR CODE	COLOR OF SPRING
414 8663 00 LH 414 8662 00 RH	10.3	85°	YL	BLACK
414 9436 00 LH 414 9435 00 RH	10.6	90°	WH	BLACK
414 9443 00 LH 414 9442 00 RH	11.11	90°	GN	BLACK
415 0106 00 LH 415 0105 00 RH	10.6	80°	RD	BLACK
415 0608 00 LH 415 0607 00 RH	11.11	80°	BL	BLACK
415 0694 00 LH 415 0693 00 RH	11.11	100°	OR	BLACK
486 0712 00 LH 486 0711 00 RH	10.3	135°	YL/YL	BLACK
486 0714 00 LH 486 0713 00 RH	10.3	150°	WH/WH	BLACK

LH=Left Hand RH=Right Hand

SPRING COLOR CODES	
BK=BLACK BL=BLUE GD=GOLD GN=GREEN OR=ORANGE PI=PINK RD=RED SI=SILVER WH=WHITE YL=YELLOW	

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☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-5**

Date: September 16, 1996

SUBJECT: Driven Pulley Position

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	FORMULA* SL (United States)	1107	Refer to attached list
1997	FORMULA SL (Canada)	1106	ALL
1997	MX Z* 440 (United States)	1172	ALL
1997	MX Z 440 (Sweden)	1173	ALL
1997	MX Z 440 (Canada)	1171	ALL
1997	TOURING* SLE (Canada)	1110	ALL

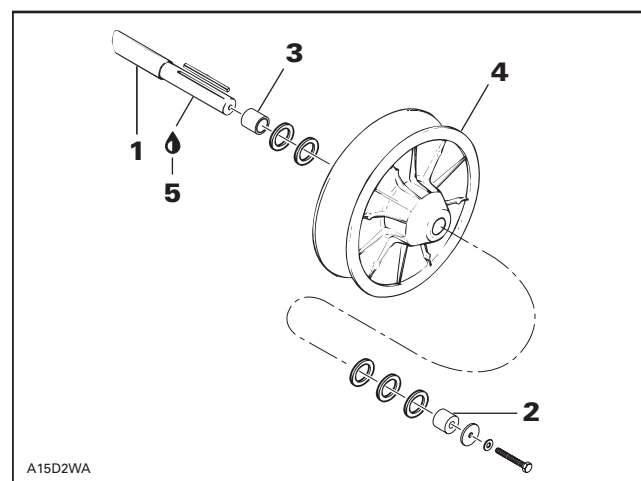
The above mentioned vehicles have been produced at factory with different counter shaft extension, shim and cap screw.

NEW PARTS

DESCRIPTION	P/N	LENGTH
COUNTER SHAFT EXTENSION	504 2607 00	40.0 mm
SHIM	504 0940 00	9.0 mm
CAP SCREW	222 0860 65	60.0 mm

Removal, installation and adjustment procedures remain the same. Refer to *Shop Manual* in section 04-04 DRIVEN PULLEY and 04-05 PULLEY DISTANCE AND ALIGNMENT.

Please update your *Parts Catalogs, Driven Pulley section*, with this bulletin.



1. Countershaft
2. Countershaft extension
3. Large shim
4. Driven pulley assembly
5. Apply antiseize lubricant



CAUTION

If new parts need to be installed or replaced, always replace with three new parts. Measure new parts before installation on vehicle.

FORMULA SL (1107) APPLICABLE SERIAL NUMBERS					
11070003	11071492	11071541	11071598	11071647	11071705
11070004	11071493	11071542	11071599	11071648	11071706
11070005	11071494	11071544	11071600	11071649	11071707
11070006	11071495	11071547	11071601	11071650	11071708
11070525	11071496	11071551	11071602	11071651	11071709
11070601	11071497	11071553	11071603	11071652	11071711
11070976	11071499	11071556	11071604	11071653	11071712
11071092	11071500	11071557	11071605	11071657	11071713
11071217	11071501	11071558	11071606	11071662	11071714
11071235	11071502	11071559	11071607	11071663	11071715
11071260	11071504	11071561	11071610	11071664	11071716
11071272	11071505	11071562	11071611	11071667	11071718
11071284	11071506	11071563	11071612	11071668	11071719
11071290	11071507	11071564	11071613	11071669	11071720
11071310	11071508	11071565	11071614	11071670	11071721
11071337	11071509	11071566	11071615	11071671	11071722
11071419	11071510	11071567	11071617	11071672	11071723
11071421	11071514	11071568	11071625	11071673	11071724
11071424	11071518	11071569	11071626	11071674	11071726
11071429	11071520	11071570	11071627	11071675	11071731
11071468	11071523	11071571	11071630	11071678	11071732
11071475	11071524	11071573	11071631	11071679	11071734
11071476	11071525	11071574	11071632	11071680	11071737
11071477	11071526	11071576	11071633	11071681	11071741
11071480	11071527	11071577	11071634	11071682	11071742
11071481	11071528	11071578	11071635	11071683	11071743
11071482	11071530	11071579	11071636	11071686	11071744
11071483	11071531	11071580	11071637	11071687	11071745
11071484	11071532	11071582	11071638	11071688	11071746
11071485	11071533	11071584	11071639	11071697	11071747
11071487	11071534	11071586	11071640	11071699	11071748
11071488	11071535	11071591	11071641	11071701	11071749
11071489	11071536	11071593	11071642	11071702	11071750
11071490	11071538	11071596	11071643	11071703	11071751
11071491	11071540	11071597	11071644	11071704	11071752

FORMULA SL (1107) APPLICABLE SERIAL NUMBERS					
11071753	11071780	11071799	11071823	11071848	
11071754	11071781	11071800	11071824	11071850	
11071755	11071782	11071801	11071825	11071851	
11071756	11071783	11071803	11071826	11071852	
11071757	11071784	11071807	11071827	11071853	
11071758	11071785	11071812	11071828	11071854	
11071759	11071786	11071813	11071829	11071856	
11071760	11071787	11071814	11071830	11071858	
11071762	11071790	11071815	11071832	11071859	
11071763	11071793	11071816	11071835	11071861	
11071764	11071794	11071817	11071836	11071862	
11071765	11071795	11071819	11071840		
11071767	11071796	11071820	11071844		
11071770	11071797	11071821	11071846		
11071779	11071798	11071822	11071847		

Please route to :

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☐ Parts		☐



No. **97-6**

Date: October 8, 1996

SUBJECT: 1997 Shop Manual

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

The *1997 Shop Manual* will be delivered in 3 volumes. They will be automatically shipped to dealers.

Volume 1 (P/N 484 0647 00) covers repair procedure for:

Tundra II LT
 Touring E/E LT/LE/SLE
 Formula S/SL
 Skandic 380/500

Shop Manual Volume 1 has already been delivered.

Volume 2 (P/N 484 0647 01) covers repair procedures for:

MX Z 440 LC/440/583/670
 Formula 500/500 DELUXE/583/Z
 Summit 500/583//670
 Grand Touring 500/583
 Skandic WT/SWT/WT LC

Shop Manual Volume 2 has already been delivered.

Volume 3 (P/N 484 0647 02) covers repair procedures for:

Formula III/III LT
 Mach 1/Z/Z LT

Shop Manual Volume 3 is presently at press.

Please route to :

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☐ Sales	☐
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No. **97-7**
UPDATE

Date: October 15, 1996

SUBJECT: Tool Kit Part Numbers

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

In order to properly service Ski-Doo snowmobiles, proper tools are required. The following are part numbers for both mandatory and optional tool kits.

DEALER TOOL KIT

➡ P/N 861 7437 00

NOTE: Kit is comprised of mandatory tools ONLY. Optional tools and service products must be ordered seperately.

DISTRIBUTOR TOOL KIT

P/N 861 7543 00

NOTE: Kit is comprised of both mandatory and optional tools.

Service products must be ordered seperately.

Tools and service products can be ordered through the regular parts channels.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



No. **97-8**

Date: October 25, 1996

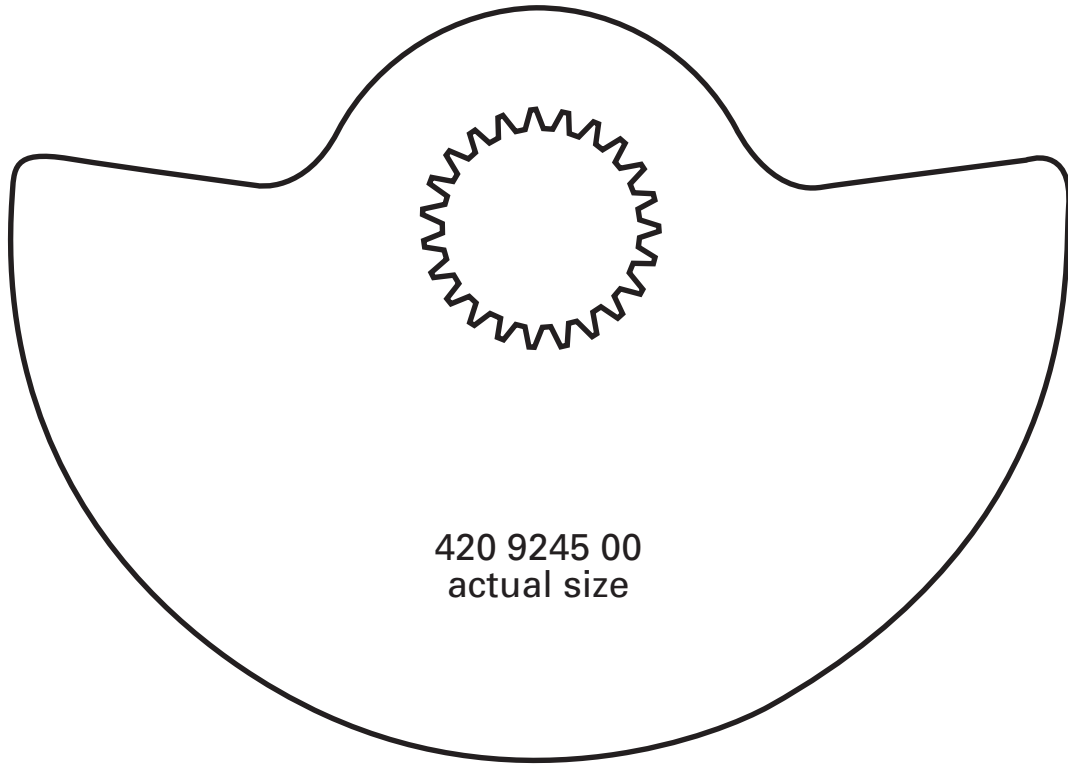
SUBJECT: Rotary Valve

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL
1996	ALL	ALL	ALL
1995	ALL	ALL	ALL
1994	ALL	ALL	ALL
1993	ALL	ALL	ALL

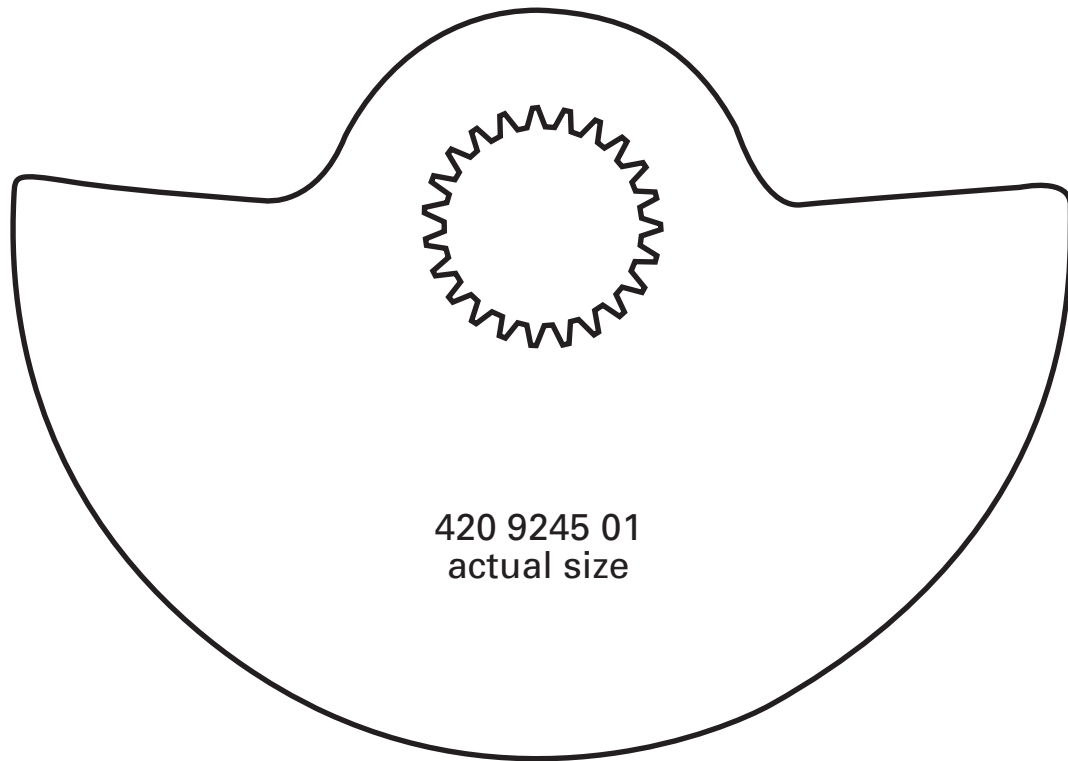
There are no identification numbers (P/N) on the rotary valves. All the following illustrations are actual size and can be used as a template to identify rotary valve.

Refer to *Shop Manual* in section ENGINE (ROTARY VALVE) for proper installation and timing.

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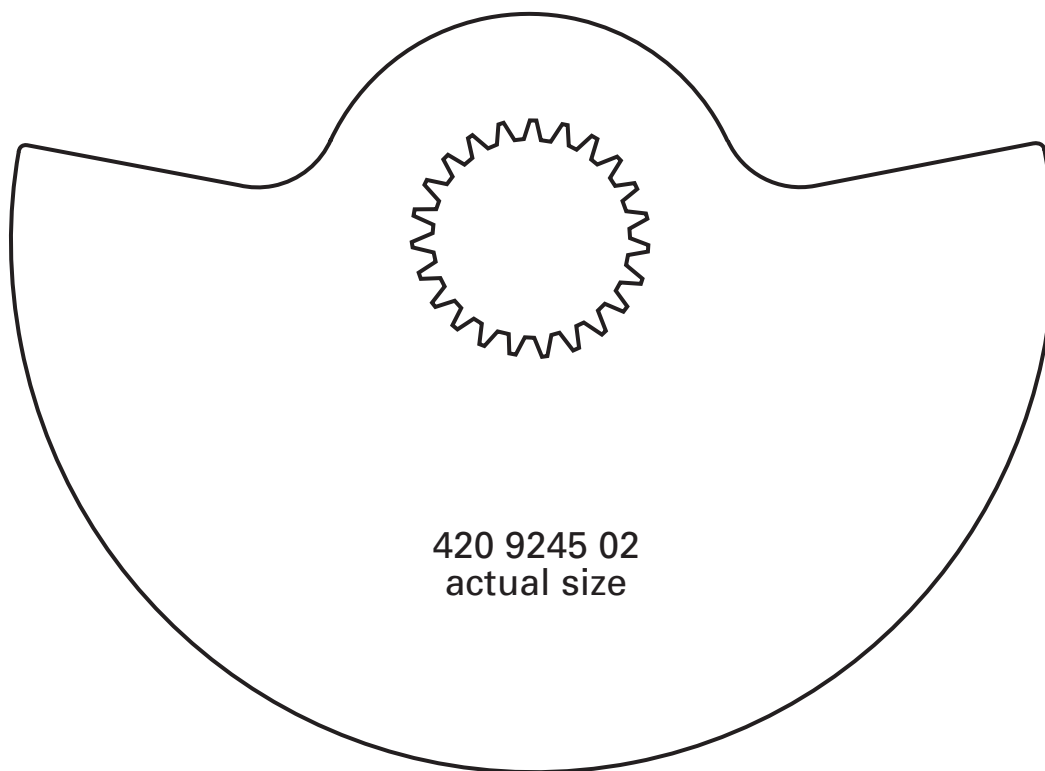
420 9245 00
actual size



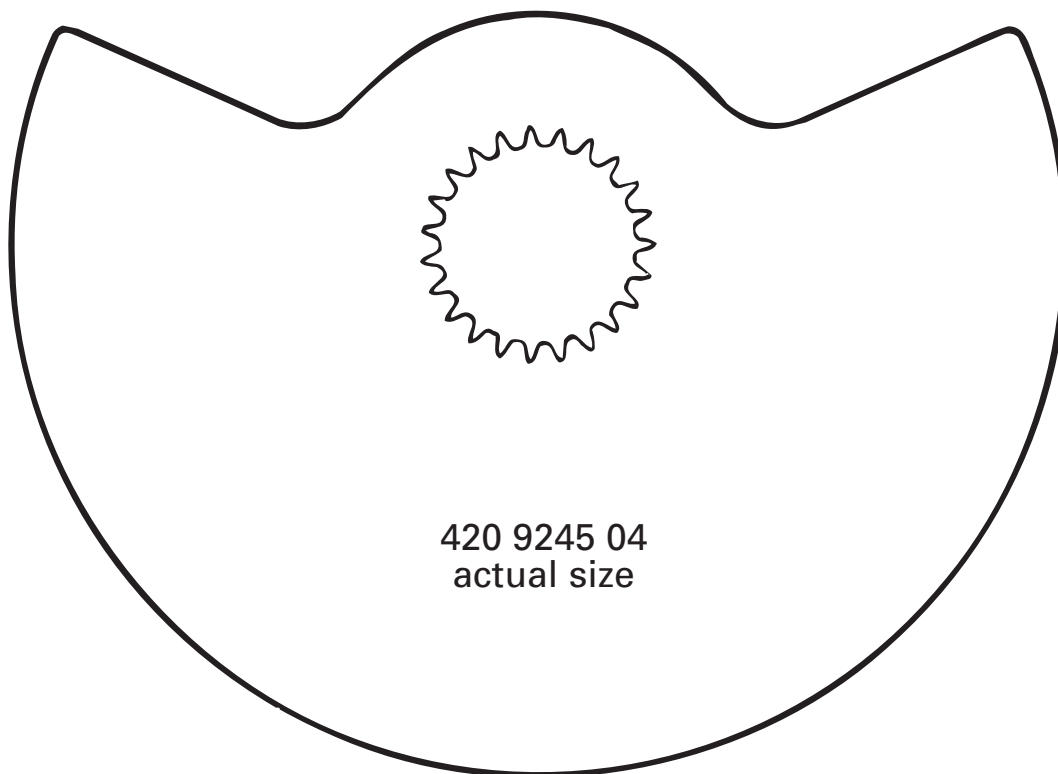
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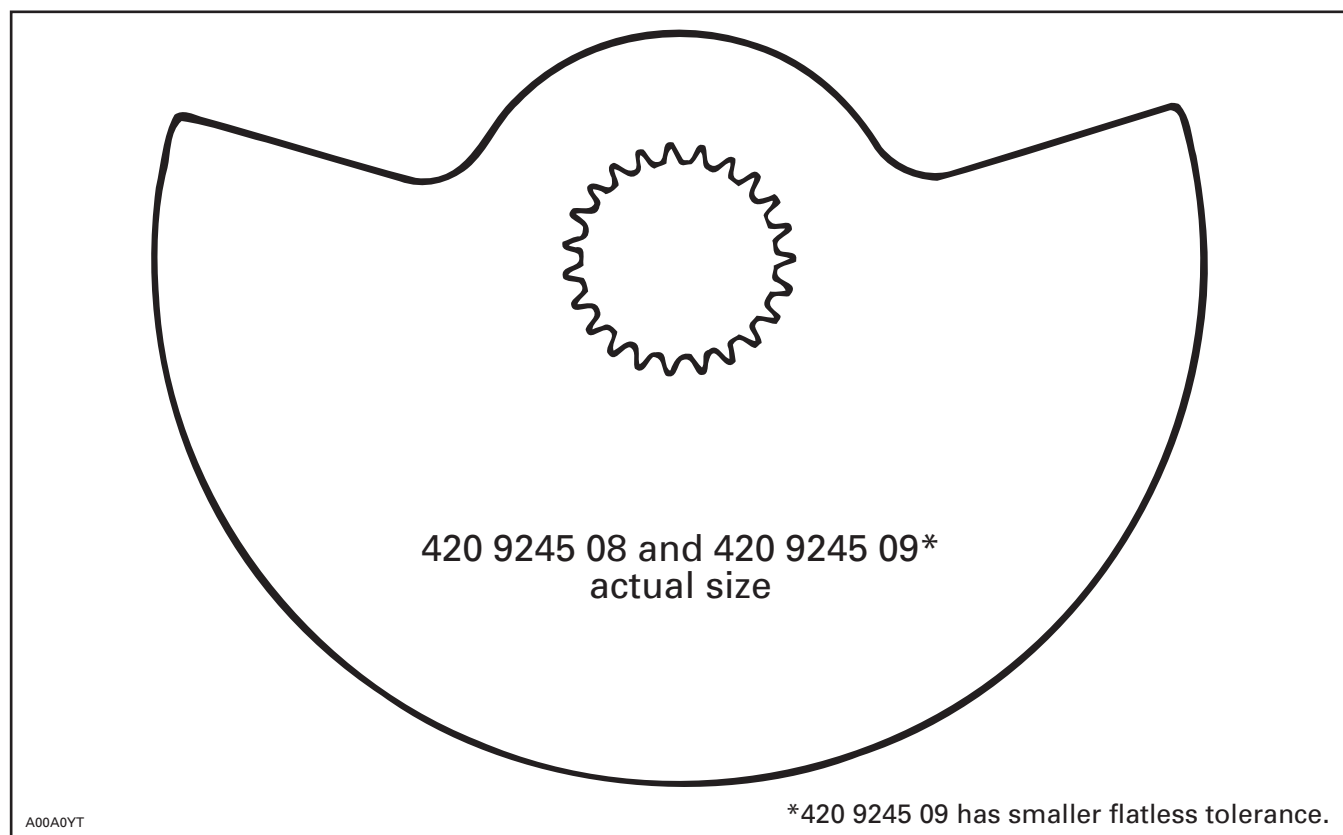
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SNOWMOBILES



SERVICE
Bulletin

No. **97-10**

Date: December 6, 1996

SUBJECT: Skandic WT LC Temperature Gauge

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	SKANDIC* WT LC	1132/1133	ALL

This bulletin contains supplementary instructions to properly install a temperature gauge on the above mentioned model.

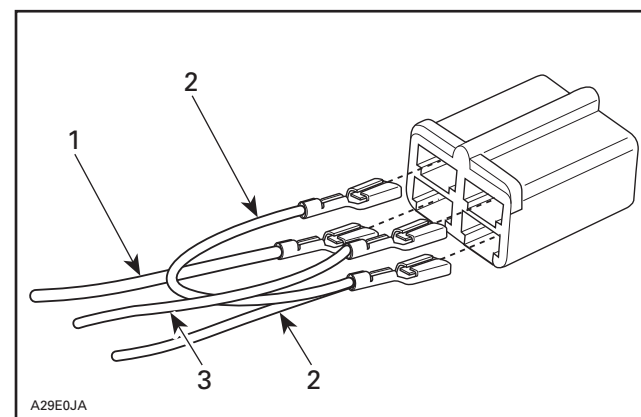
It must be used in conjunction with instruction sheet of existing kit (P/N 861 7557 00).

Install female connectors into 4-connector housing.

Using quick connector, connect other end of YELLOW/BLACK wire to the nearest YELLOW/BLACK wire in instrument harness.

ADDITIONAL PARTS REQUIRED

DESCRIPTION	P/N	QTY
Connector	561 5032 00	4
4-connector Housing	409 2049 00	1
Quick Connector	409 9004 00	1
Wire (YELLOW)	N/A	15 cm (6 in)
Wire (YELLOW/BLACK)	N/A	15 cm (6 in)



1. PURPLE wire
2. YELLOW wires
3. YELLOW/BLACK wire

INSTALLATION INSTRUCTION FOR SKANDIC WT LC

Disconnect YELLOW wire from overheating pilot lamp and cut existing connector.

Join the end of the YELLOW wire to one end of a short piece of YELLOW wire and attach a female connector.

Install a female connector to the other end of the small YELLOW wire.

Disconnect PURPLE wire from overheating lamp, cut off existing connector and replace with new female connector.

Install a female connector to one end of the small YELLOW/BLACK wire.

Ensure that the gauge wires correspond to vehicle wires as per the following table.

GAUGE HARNESS	VEHICLE HARNESS
RED/YELLOW	YELLOW
GREEN AND YELLOW/BLACK	YELLOW/BLACK
YELLOW	YELLOW
BROWN	PURPLE

Please route to :

	Init.
☐ Service	☐
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-11**

Date: December 23, 1996

**SUBJECT: A) Operator's Guide Update
B) GT SE Shop Manual Update
C) GT SE What's New (Video
and Literature Update)**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	GRAND TOURING SE (Canada)	1129	ALL
1997	GRAND TOURING SE (U.S.)	1130	ALL
1997	GRAND TOURING SE (Europe)	1131	ALL

A) OPERATOR'S GUIDE UPDATE

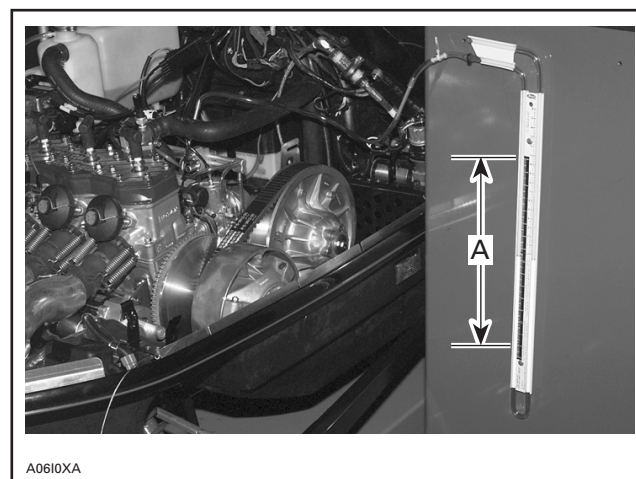
Please inform all 1997 GT SE owners of the minimum air suspension pressure before riding. See *Operator's Guide Update* sheet attached.

NOTE: *Operator's Guide Update* sheet (P/N 415 0323 04) is enclosed in the *operator's Guide* and *Warranty Registration* plastic bag for each 1997 GT SE.

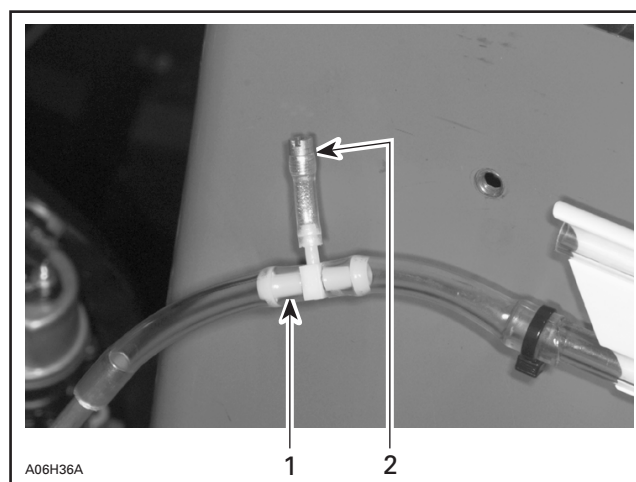
B) SHOP MANUAL UPDATE

Page 05-10

When testing DPM pump pressure with a U-tube, a jet (P/N 270 5001 57) must be connected. Install a T-fitting (P/N 414 2225 00) to the hose (just before the U-tube) then connect the jet to small nipple of T-fitting.



A. 400 ± 50 mm of water



1. T-fitting (P/N 414 2225 00)
2. Jet (P/N 270 5001 57)

Page 06-1

Air Suspension System Tightness

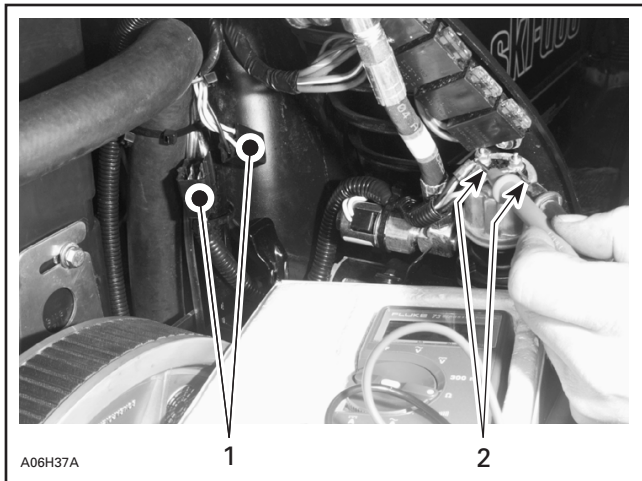
- Turn on the compressor until the pressure level equals to more than half the gauge on the dash-board.
- Remove the ignition key.
- Before plugging ohmmeter, unplug housing 05-5. See next photo.
- Wait 5 minutes for the pressure to stabilize.
- Connect an ohmmeter to the connectors of the pressure sensor. Polarity is not important.

NOTE: The electric resistance of the pressure sensor will vary according to the pressure of the system.

- Check the resistance then wait 1 hour. The resistance should not decrease more than 0.5 ohm. If it does, there may be a leak in the system.
- To find the leak, spray soapy water on the fittings.

Page 06-2

Before plugging ohmmeter, unplug housing 05-5.



1. Unplug housing 05-5
2. Connect ohmmeter to pressure sensor

Testing value (residual pressure) should read as follows:

PRESSURE	RESISTANCE
Minimum (residual pressure)	48
Maximum (60 sec. of compressor operation)	180

NOTE: The shock contains silicone lubricant. Take care not to lose this lubricant when removing or installing the shock.

C) GT SE WHAT'S NEW (VIDEO AND LITERATURE UPDATE)

Page 4-5

Tests

(Airtightness of the Pneumatic Shock Absorber)

- Turn on the compressor until the pressure level equals to more than half the gauge on the dash-board.
- Remove the ignition key.
- Before plugging ohmmeter, unplug housing 05-5.
- Wait 5 minutes for the pressure to stabilize.
- Connect an ohmmeter to the connectors of the pressure sensor. Polarity is not important.

NOTE: The electric resistance of the pressure sensor will vary according to the pressure of the system.

- Check the resistance and then wait 1 hour. The resistance should not decrease more than 0.5 ohm. If it does, there may be a leak in the system.
- To find the leak, spray soapy water on the fittings.

Page 4-6

Testing value (minimum pressure) should read as follows:

48 ohms — minimum pressure.

Please update your manuals by indicating the number of this bulletin in the proper section.

Enclosure.

Please route to :

☐ Service	Init. ☐
☐ Sales	☐
☐ Parts	☐



No. **97-12**

Date: January 30, 1997

SUBJECT: Ski-Doo Paint Codes

YEAR	MODEL NAME	MODEL NUMBER	SERIAL NUMBER
1997 to 1991	All	All	All

This bulletin lists B.A.S.F. R-M and PPG paint codes corresponding to snowmobile hood, frame, cylinder head/cover and suspension component colors.

It is divided in 4 sections:

- 1997 Ski-Doo Paint Codes
- 1996 to 1991 Ski-Doo Hood Paint Codes
- Corresponding Paint Codes: list all Ski-Doo equivalents paint codes with B.A.S.F., P.P.G. and Spray can.
- New Ski-Doo Paint Codes

Refer to *Service bulletin* 95-14 for paint codes prior to 1991.

1997 SKI-DOO PAINT CODES

Description	Model number	HOOD paint code	FRAME paint code	CYLINDER HEAD/COVER paint code	SUSPENSION COMPONENT paint code		
					Wheel	Swing Arm	Spring
Tundra II LT	3266	B152	B160	N.A.	AL	N.A.	B160
Tundra II LT (Sweden)	3267	B152	B160	N.A.	AL	N.A.	B160
Skandic 380 (Canada)	1120	B160	AL	N.A.	B160	B160	B160
Skandic 380 (U.S.)	1121	B160	AL	N.A.	B160	B160	B160
Skandic 380 (Sweden)	1122	B160	AL	N.A.	B160	B160	B160
Skandic 500 (Canada)	1117	B160	AL	N.A.	B160	B160	B160
Skandic 500 (U.S.)	1118	B160	AL	N.A.	B160	B160	B160
Skandic 500 (Sweden)	1119	B160	AL	N.A.	B160	B160	B160
Skandic WT	1134	B160	B160	N.A.	AL	N.A.	B16
Skandic WT (U.S.)	1135	B160	B160	N.A.	AL	N.A.	B16
Skandic WT LC	1132	B160	B160	N.A.	AL	N.A.	B16
Skandic WT LC (U.S.)	1133	B160	B160	N.A.	AL	N.A.	B16
Skandic SWT	1136	B160	B160	N.A.	AL	N.A.	B16
Skandic SWT (U.S.)	1137	B160	B160	N.A.	AL	N.A.	B16
Touring E (Canada)	1115	B177	AL	N.A.	B160	B160	B160
Touring ELT (Canada)	1116	B177	AL	N.A.	B160	B160	B160
Touring ELT (Sweden)	1186	B177	AL	N.A.	B160	B160	B160
Touring LE (Canada)	1112	B177	AL	N.A.	B160	B160	B160
Touring LE (U.S.)	1113	B177	AL	N.A.	B160	B160	B160
Touring LE (Sweden)	1114	B177	AL	N.A.	B160	B160	B160
Touring SLE (Canada)	1110	B177	AL	N.A.	B160	B160	B160
Touring SLE (U.S.)	1111	B177	AL	N.A.	B160	B160	B160
Formula S (Canada)	1108	B176	AL	N.A.	B176	B160	B176
Formula S (Sweden)	1109	B176	AL	N.A.	B176	B160	B176
Formula SL (Canada)	1106	B176	B160	N.A.	B176	B160	B176
Formula SL (U.S.)	1107	B176	B160	N.A.	B176	B160	B176
Grand Touring 500 (Canada)	1123	B177	B160	B152	B185	B160	B185
Grand Touring 500 (U.S.)	1124	B177	B160	B152	B185	B160	B185
Grand Touring 500 (Sweden)	1125	B177	B160	B152	B185	B160	B185

Description	Model number	HOOD paint code	FRAME paint code	CYLINDER HEAD/COVER paint code	SUSPENSION COMPONENT paint code		
					Wheel	Swing Arm	Spring
Grand Touring 583 (Canada)	1126	B177	B160	B176	B185	B160	B185
Grand Touring 583 (U.S.)	1127	B177	B160	B176	B185	B160	B185
Grand Touring 583 (Sweden)	1128	B177	B160	B176	B185	B160	B185
Grand Touring SE (Canada)	1129	B167	B184	B168	B182	B184	B182
Grand Touring SE (U.S.)	1130	B167	B184	B168	B182	B184	B182
Grand Touring SE (Sweden)	1131	B167	B184	B168	B182	B184	B182
Summit 500 (Canada)	1157	B179	B160	B152	B186	B160	B186
Summit 500 (U.S.)	1158	B179	B160	B152	B186	B160	B186
Summit 583 (Canada)	1159	B179	B160	B176	B186	B160	B186
Summit 583 (U.S.)	1160	B179	B160	B176	B186	B160	B186
Summit 583 (Sweden)	1161	B179	B160	B176	B186	B160	B186
Summit 670 (Canada)	1162	B179	B160	B168	B186	B160	B186
Summit 670 (U.S.)	1163	B179	B160	B168	B186	B160	B186
MX Z 440 (Canada)	1171	B152	B152	N.A.	B152	B152	B152
MX Z 440 (U.S.)	1172	B152	B152	N.A.	B152	B152	B152
MX Z 440 (Sweden)	1173	B152	B152	N.A.	B152	B152	B152
MX Z 440 LC (Canada)	1168	B152	B152	B152	B152	B152	B152
MX Z 440 LC (U.S.)	1169	B152	B152	B152	B152	B152	B152
MX Z 440 LC (Sweden)	1170	B152	B152	B152	B152	B152	B152
MX Z 583 (Canada)	1174	B152	B152	B176	B152	B152	B152
MX Z 583 (Sweden)	1175	B152	B152	B176	B152	B152	B152
MX Z 583 (U.S.)	1176	B152	B152	B176	B152	B152	B152
MX Z 670 (Canada)	1193	B152	B152	B168	B152	B152	B152
MX Z 670 (U.S.)	1194	B152	B152	B168	B152	B152	B152
MX Z 670 (Sweden)	1195	B152	B152	B168	B152	B152	B152
Formula III (Canada)	1148	B175	B183	B155	B176	B183	B176
Formula III (U.S.)	1149	B175	B183	B155	B176	B183	B176
Formula III (Sweden)	1150	B175	B183	B155	B176	B183	B176
Formula III LT (Canada)	1151	B175	B183	B155	B176	B183	B176

Description	Model number	HOOD paint code	FRAME paint code	CYLINDER HEAD/COVER paint code	SUSPENSION COMPONENT paint code		
					Wheel	Swing Arm	Spring
Formula III LT (U.S.)	1152	B175	B183	B155	B176	B183	B176
Formula III LT (Sweden)	1153	B175	B183	B155	B176	B183	B176
Formula 500 (Canada)	1138	B176	B176	B152	B176	B176	B176
Formula 500 (U.S.)	1139	B176	B176	B152	B176	B176	B176
Formula 500 (Sweden)	1140	B176	B176	B152	B176	B176	B176
Formula 500 DELUXE (Canada)	1191	B176	B176	B152	B176	B176	B176
Formula 500 DELUXE (U.S.)	1192	B176	B176	B152	B176	B176	B176
Formula 583 (Canada)	1141	B176	B160	B176	B176	B160	B176
Formula 583 (U.S.)	1142	B176	B160	B176	B176	B160	B176
Formula Z (Canada)	1145	B175	B183	B176	B176	B183	B176
Formula Z (U.S.)	1146	B175	B183	B176	B176	B183	B176
Mach 1 (Canada)	1177	B160	B160	B168	B152	B160	B152
Mach 1 (U.S.)	1178	B160	B160	B168	B152	B160	B152
Mach 1 (Sweden)	1179	B160	B160	B168	B152	B160	B152
Mach Z (Canada)	1180	B160	B160	B181	B152	B160	B152
Mach Z (U.S.)	1181	B160	B160	B181	B152	B160	B152
Mach Z (Sweden)	1182	B160	B160	B181	B152	B160	B152
Mach Z LT (Canada)	1183	B160	B160	B181	B152	B160	B152
Mach Z LT (U.S.)	1184	B160	B160	B181	B152	B160	B152
Mach Z LT (Sweden)	1185	B160	B160	B181	B152	B160	B152

AL: Aluminum

N.A.: Not Available

HOOD PAINT CODES

Description	Model number	Bombardier hood paint code
1996		
Élan	3053	B-160
Tundra II LT	3264	B-152
Tundra II LT (Sweden)	3265	B-152
Skandic 380 (Canada)	1534	B-160
Skandic 380 (U.S.)	1535	B-160
Skandic 380 (Sweden)	1536	B-160
Skandic 500 (Canada)	1531	B-160
Skandic 500 (U.S.)	1532	B-160
Skandic 500 (Sweden)	1533	B-160
Skandic WT	1537	B-160
Skandic WT (U.S.)	1539	B-160
Touring E (Canada)	1530	B-177A
Touring ELT 2 (Canada)	1542	B-177A
Touring LE (Canada)	1527	B-177A
Touring LE (U.S.)	1528	B-177A
Touring LE (Sweden)	1529	B-177A
Touring SLE (Canada)	1524	B-177A
Touring SLE (U.S.)	1525	B-177A
Formula S (Canada)	1523	B-176
Formula S (Sweden)	1541	B-176
Formula SL (Canada)	1521	B-176
Formula SL (U.S.)	1522	B-176
Grand Touring 500 (Canada)	1067	B-177
Grand Touring 500 (U.S.)	1068	B-177
Grand Touring 500 (Sweden)	1069	B-177
Grand Touring 580 (Canada)	1070	B-177
Grand Touring 580 (U.S.)	1071	B-177
Grand Touring 580 (Sweden)	1072	B-177
Grand Touring SE (Canada)	1073	B-177
Grand Touring SE (U.S.)	1074	B-177
Grand Touring SE (Sweden)	1075	B-177
Summit 500 (Canada)	1058	B-169
Summit 500 (U.S.)	1059	B-169
Summit 583 (Canada)	1064	B-169
Summit 583 (U.S.)	1065	B-169
Summit 583 (Sweden)	1066	B-169

Description	Model number	Bombardier hood paint code
1996		
Summit 670 (Canada)	1061	B-169
Summit 670 (U.S.)	1062	B-169
Summit 670 (Sweden)	1063	B-169
MX Z 440 (Canada)	1051	B-152
MX Z 440 (U.S.)	1052	B-152
MX Z 440 (Sweden)	1053	B-152
MX Z 583 (Canada)	1094	B-152
MX Z 583 (Sweden)	1095	B-152
MX Z 583 (U.S.)	1096	B-152
MX Z 670 (Canada)	1187	B-152
MX Z 670 (U.S.)	1188	B-152
Formula III (Canada)	1076	B-175
Formula III (U.S.)	1077	B-175
Formula III (Sweden)	1093	B-175
Formula III LT (Canada)	1100	B-175
Formula III LT (U.S.)	1101	B-175
Formula III LT (Sweden)	1102	B-175
Formula SLS (Canada)	1049	B-176
Formula SLS (U.S.)	1050	B-176
Formula SLS (Sweden)	1097	B-176
Formula STX (Canada)	1054	B-176
Formula STX (U.S.)	1055	B-176
Formula STX LT (2) (Canada)	1056	B-176
Formula STX LT (2) (U.S.)	1057	B-176
Formula Z (Canada)	1090	B-175
Formula Z (U.S.)	1091	B-175
Formula Z (Sweden)	1092	B-175
Formula SS (Canada)	1078	B-175
Formula SS (U.S.)	1079	B-175
Mach 1 (Canada)	1081	B-160
Mach 1 (U.S.)	1082	B-160
Mach 1 (Sweden)	1083	B-160
Mach Z (Canada)	1084	B-160
Mach Z (U.S.)	1085	B-160
Mach Z (Sweden)	1086	B-160
Mach Z LT (Canada)	1087	B-160
Mach Z LT (U.S.)	1088	B-160
Mach Z LT (Sweden)	1089	B-160

Description	Model number	Bombardier hood paint code
1995		
Élan	3052	B-160
Alpine II	3357	B-152
Tundra II LT	3262	B-152
Tundra II LT (Sweden)	3263	B-152
Skandic 380 (Canada)	1505	B-160
Skandic 380 (Sweden)	1507	B-160
Skandic 380 (U.S.)	1518	B-160
Skandic 500 (Canada)	1504	B-160
Skandic 500 (Sweden)	1508	B-160
Skandic 500 (U.S.)	1517	B-160
Skandic WT	1515	B-160
Skandic Mountain SP	1516	B-160
Touring E (Canada)	1503	B-172
Touring LE (Canada)	1502	B-162
Touring LE (Sweden)	1510	B-162
Touring LE (U.S.)	1519	B-162
Touring SLE (Canada)	1501	B-162
Touring SLE (U.S.)	1511	B-162
Touring SLE (Sweden)	1512	B-162
Formula S (Canada)	1520	B-145
Formula SL (Canada)	1500	B-145
Formula SL (U.S.)	1513	B-145
Grand Touring 470 (Canada)	1022	B-163
Grand Touring 470 (U.S.)	1023	B-163
Grand Touring 470 (Sweden)	1046	B-163
Grand Touring 580 (Canada)	1024	B-163
Grand Touring 580 (U.S.)	1025	B-163
Grand Touring 580 (Sweden)	1026	B-163
Grand Touring SE 670 (Canada)	1027	B-163
Grand Touring SE 670 (U.S.)	1028	B-167
Grand Touring SE 670 (Sweden)	1029	B-167
Summit 583 (Canada)	1013	B-169
Summit 583 (U.S.)	1014	B-169
Summit 583 (Sweden)	1015	B-169
Summit 670 1 st series (Canada)	3838	B-169

Description	Model number	Bombardier hood paint code
1995		
Summit 670 1 st series (U.S.)	3839	B-169
Summit 670 2 nd series (Canada)	1016	B-169
Summit 670 2 nd series (U.S.)	1017	B-169
Summit 670 2 nd series (Sweden)	1018	B-169
MX (Canada)	1000	B-152
MX (U.S.)	1001	B-152
MX Z (Canada)	1035	B-152
MX Z (U.S.)	1036	B-152
MX Z (Sweden)	1037	B-152
Formula STX (Canada)	1003	B-145
Formula STX (U.S.)	1004	B-145
Formula STX LT (2) (Canada)	1007	B-145
Formula STX LT (2) (U.S.)	1008	B-145
Formula Z (Canada)	1030	B-145
Formula Z (U.S.)	1031	B-145
Formula Z (Sweden)	1032	B-145
Formula SS (Canada)	1033	B-145
Formula SS (U.S.)	1034	B-145
Formula SS (Sweden)	1047	B-145
Mach 1 670 (Canada)	1043	B-160
Mach 1 670 (U.S.)	1044	B-160
Mach 1 (Sweden)	1045	B-160
Formula III (Canada)	1038	B-175
Formula III (U.S.)	1039	B-175
Mach Z (Canada)	1040	B-160
Mach Z (U.S.)	1041	B-160
Mach Z (Sweden)	1042	B-160

Description	Model number	Bombardier hood paint code
1994		
Élan	3051	B-160
Tundra II	3258	B-152
Tundra II LT	3259	B-152
Alpine II	3356	B-152
Safari L	3682	B-172
Safari DL	3683	B-172
Safari DL (Sweden)	3694	B-172
Safari Rally E	3689	B-172
Skandic II 377	3685	B-160
Skandic II 377 R	3686	B-160
Skandic II 377 R (Sweden)	3690	B-160
Skandic II 503 R	3687	B-160
Skandic II 503 R (Sweden)	3691	B-160
Skandic II 503 R SLT	3688	B-160
Skandic II 503 R SLT (Sweden)	3692	B-160
Formula MX (Canada)	3868	B-152
Formula MX (U.S.)	3883	B-152
Formula MX (Sweden)	3885	B-152
Formula MX Z (Canada)	3870	B-152
Formula MX Z (U.S.)	3886	B-152
Summit 470 (Canada)	3871	B-169
Summit 470 (U.S.)	3888	B-169
Summit 470 (2) (Canada)	3865	B-169
Summit 470 (2) (U.S.)	3887	B-169
Summit 583 (2) (Canada)	3881	B-169
Summit 583 (2) (U.S.)	3882	B-169
Summit 583 (Canada)	3876	B-169
Summit 583 (U.S.)	3891	B-169
Summit 583 (2) (Sweden)	3890	B-169
Formula STX (Canada)	3873	B-145
Formula STX (U.S.)	3893	B-145
Formula STX (Sweden)	3892	B-145
Formula STX (2) (Canada)	3874	B-145
Formula STX (2) (U.S.)	3894	B-145
Grand Touring	3867	B-163
Grand Touring (Sweden)	3879	B-163
Grand Touring XTC	3864	B-163
Grand Touring XTC (Sweden)	3878	B-163
Grand Touring SE	3866	B-167

Description	Model number	Bombardier hood paint code
1994		
Formula ST (Canada)	3872	B-145
Formula ST (U.S.)	3889	B-145
Formula Z (Canada)	3875	B-145
Formula Z (U.S.)	3897	B-145
Formula Z (Sweden)	3896	B-145
MACH 1	3863	B-160
MACH 1 (Sweden)	3880	B-160
MACH Z (Canada)	3877	B-160
MACH Z (Sweden)	3898	B-160
MACH Z (U.S.)	3899	B-160

Description	Model number	Bombardier hood paint code
1993		
Élan	3050	B-160
Tundra	3256	B-152
Tundra LT	3257	B-152
Alpine II	3355	B-136
Safari L	3670	B-162
Safari DL	3671	B-162
Safari 503 Rally	3672	B-162
Skandic II 377	3673	B-160
Skandic II 377 R	3674	B-160
Skandic 503 R	3675	B-160
Skandic 503 R SLT	3676	B-160
Skandic 503 R SLT (Sweden)	3678	B-160
Skandic 503 R (Sweden)	3679	B-160
Skandic 377 R (Sweden)	3680	B-160
Safari DL (Sweden)	3681	B-162
Formula MX	3791	B-154
Formula MX XTC R	3792	B-154
Formula Plus	3793	B-145
Formula Plus E	3794	B-145
Formula Plus XTC	3795	B-145
Grand Touring	3796	B-163
Formula MACH 1	3797	B-160
Formula MACH 1 XTC	3798	B-160
Formula Plus EFI	3799	B-145
Formula MX Z	3844	B-152
Formula MACH Z	3845	B-160
Formula MX (2)	3846	B-154

Description	Model number	Bombardier hood paint code
1993		
Formula MX ZA	3847	B-152
Formula MACH ZA	3848	B-160
Formula Plus X	3849	B-145
Formula PLUS (2)	3850	B-145
Formula MACH (2)	3852	B-160
Formula MX XTC R (Sweden)	3854	B-154
Formula PLUS (Sweden)	3855	B-145
Formula PLUS XTC (Sweden)	3856	B-145
Grand Touring (Sweden)	3857	B-163
Formula PLUS EFI (Sweden)	3858	B-145
Formula MACH 1 (Sweden)	3859	B-160
Formula MACH 1 XTC (Sweden)	3860	B-160
Formula MX Z (Sweden)	3861	B-152
Formula MACH Z (Sweden)	3862	B-160

Description	Model number	Bombardier hood paint code
1992		
Élan	3049	B-106
Safari LCE	3658	B-146
Safari GLX	3659	B-158
Safari L	3662	B-153
Safari LE	3663	B-161
Skandic II 377	3669	B-160
Skandic II 377R	3665	B-160
Scout	3668	B-121
Formula MX	3775	B-154
Formula Plus	3777	B-145
Formula Plus E	3778	B-145
Formula Plus X	3790	B-145
Formula Plus XTC	3779	B-145
Formula Plus XTC E	3780	B-145
Formula MACH 1	3781	B-160
Formula MACH 1 X	3789	B-160
Formula MACH 1 XTC	3782	B-160
Formula MACH 1 XTC (2)	3783	B-160
Formula MX XTC R	3788	B-154

Description	Model number	Bombardier hood paint code
1991		
Élan	3048	B-106
Alpine II	3352	B-136
Safari L	3650	B-152
Safari LE	3651	B-155
Safari LX	3652	B-156
Safari LXE	3653	B-156
Safari GLX	3654	B-158
Safari LCE	3656	B-146
Formula MX	3755	B-154
Formula MX E	3756	B-154
Formula MX XTC	3757	B-154
Formula MX XTC E	3758	B-154
Formula MX XTC SS/SR	3769	B-154
Formula MX XTC E SS/SR	3770	B-154
Formula MX X	3766	B-154
Formula Plus	3759	B-145
Formula Plus E	3760	B-145
Formula Plus XTC	3761	B-145
Formula Plus XTC E	3762	B-145
Formula Plus XTC SS/SR	3771	B-145
Formula Plus XTC E SS/SR	3772	B-145
Formula Plus X	3767	B-145
Formula MACH 1	3763	B-146
Formula MACH 1 XTC	3764	B-146
Formula MACH 1 XTC SS/SR	3773	B-146
Formula MACH 1 X	3768	B-146

CORRESPONDING PAINT CODES

BOMBARDIER		B.A.S.F. R-M	PPG	SPRAY CAN
B101	CAN-AM RED	N.A.	DCC 69917	N.A.
B102	SKI-DOO YELLOW 80	RM 79044	DCC 88208	413 4055 00
B103	PERFORMANCE ORANGE	RM 79046	DCC 69918	N.A.
B104	ICE ORANGE	RM 87764	DCC 69919	N.A.
B105	MIDNIGHT BLUE	RM 85003	DCC 17876	413 4033 00
B106	EBONY BLACK	RM 84976	DCC 9553	413 4026 00
B108	M-S ORANGE 81	RM 85363	DCC 69920	413 4035 00
B109	SAFARI RED	RM 84977 ①	DCC 78185 ②	N.A.
B111	SILVER	N.A.	DBU 38261	413 4060 00
B114	POLAR WHITE	RM 86001	DCC 98197	N.A.
B121	SKI-DOO YELLOW 84	RM 84978	DCC 88209	413 4078 00
B122	SPECIAL WHITE	N.A.	DCC 98198	N.A.
B123	SILVER GRAY	RM 84979	DBU 38260 ②	413 4040 00
B136	SUNSET ORANGE	RM 84980	DCC 69921	N.A.
B137	BLUE STRATOSPHERE	RM 84981	DBU 17877	N.A.
B142	MAPLE RED	RM 84982	DBU 59965 ②	N.A.
B144	GUNMETAL GRAY	RM 84983	DBU 38257	413 4092 00
B145	METALLIC RED	RM 84066 ①	DBU 78186 ①	413 4084 00
B146	METALLIC BLACK	RM 84984	DBU 9552 ②	413 4085 00
B147	DARK GRAY	RM 84985	DBU 38258	N.A.
B148	SAND GRAY	RM 84986	DBU 38259	413 4093 00
B151	WILD BERRIES	RM 84987	DBU 78187 ① ②	N.A.
B152	SUNFLOWER YELLOW (HOOD) SUNFLOWER YELLOW (WHEEL) SUNFLOWER YELLOW (FRAME)	RM 84988-0 RM 84988-7 DFM 84988	88255 N.A. N.A.	413 4087 00 N.A. N.A.
B153	SNOW WHITE	RM 80470	DBU 98199	
B154	PEARL WHITE	N.A.	DBU 98200 ① ②	413 4088 00
B155	MAGENTA	RM 85000	59817	N.A.
B156	MEDITERRANEAN BLUE	RM 79810	DBU 17878 ①	N.A.
B158	MULBERRY	RM 79888	DBU 59966	N.A.
B160	DEEP BLACK (HOOD) DEEP BLACK (FRAME)	RM 85366 N.A.	DBU 9554 N.A.	413 4091 00 N.A.
B161	QUARTZ PINK	RM 85176 ①	DBU 78188 ① ②	N.A.
B162	PEACOCK BLUE	RM 21009 ①	DBU 49688 ① ②	413 4102 00
B163	PEARL BLUE	RM 85017 ①	N.A.	413 4089 00
B164	AQUA BLUE	Refer to new paint codes		N.A.
B165	VIOLET	Refer to new paint codes		413 4090 00
B166	FLAME RED	Refer to new paint codes		N.A.

CORRESPONDING PAINT CODES (CONTINUED)

BOMBARDIER		B.A.S.F. R-M	PPG	SPRAY CAN
B167	BAVARIAN BLUE	RM 21618	190086	413 4097 00
B168	PLUM	RM 80348	59816	N.A.
B169	FOREST GREEN	RM 79833 ③ RM 79833-4 ④	DBU 49591F	413 4096 00
B170	METALLIC QUARTZ	RM 80262 ①	DBU 39002	N.A.
B172	TEAL BLUE	RM 87929 ①	DBU 18910	413 4103 00
B173	RASBERRY	RM 87365 ①	SICO: ID 3289	N.A.
B174	METALLIC FIREFLY GREEN	RM 80369 ③ RM 80369-46 ④	48029	N.A.
B175	METALLIC ROYAL VIOLET	RM 87151	19532	413 4104 00
B175A	NON-METALLIC ROYAL VIOLET (SWING ARM)	RM 87930 ③ RM 87930-9 ④	59813	413 4104 00
	NON-METALLIC ROYAL VIOLET (SPRING)	RM 87930-9 ④	59813	413 4104 00
B176	VIPER RED (HOOD)	87960	N.A.	413 4108 00
	VIPER RED (FRAME)	DFM 87960	74790	N.A.
B177	METALLIC OCEAN GREEN (HOOD)	RM 88482	48024	413 4109 00
	METALLIC OCEAN GREEN (FRAME)	RM 88481	48025	N.A.
B177A	NON-METALLIC OCEAN GREEN	RM 88480	49536	413 4109 00
B178	NEON GREEN	RM 87961	49539F	N.A.
B179	SAPHIR BLUE	N.A.	19821	N.A.
B181	ANTHRACITE	N.A.	39072	N.A.
B182	JAY BLUE	N.A.	18818	N.A.
B183	AFRICAN VIOLET (FRAME)	DFM 88792	59815	N.A.
	AFRICAN VIOLET (SWING ARM and SPRING)	FM 88792	59815	N.A.
B184	VELVET BLUE	N.A.	190085	N.A.
B185	FIR GREEN	N.A.	48020	N.A.
B186	FRENCH BLUE	N.A.	19817	N.A.

① A white undercoat must be applied: B.A.S.F. = 54-M25, R-M = BC 190 or 285-100, PPG = DMD 663

② Approximate match

③ 1995 models and earlier

④ 1996 models

⑤ Total mixed quantity does not equal 1 liter

N.A.: Not Available

NEW SKI-DOO PAINT CODE

B-164	AQUA BLUE		①
RM			
BC	50	=	41.7
BC	500	=	107.8
BC	410	=	155.8
BC	190	=	274.7

B-165	VIOLET		①
RM			
BC	50	=	41.7
BC	300	=	167.7
BC	410	=	187.6
BC	470	=	194.9
BC	190	=	261.0

B-166	FLAME RED		①
RM			
BC	50	=	41.7
BC	710	=	146.4
BC	830	=	148.8
BC	815	=	174.3

① Total mixed quantity does not equal 1 liter

Please route to :

	Init.
☐ Service	☐
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-13**

Date: February 12, 1997

**SUBJECT: A) Slider Shoe Wear Limit
B) Oil Injection Pump Lever**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

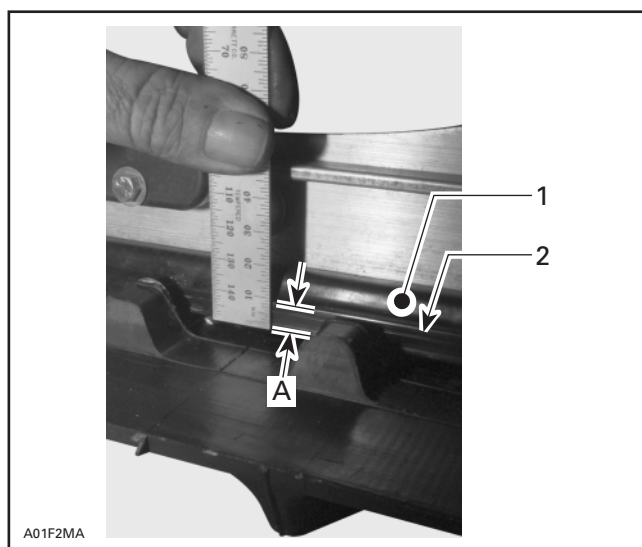
A) SLIDER SHOE WEAR LIMIT

The following is the procedure to properly measure wear limit on snowmobile slider shoes as well as additional related information.

How to Measure

Measure slider shoes from the bottom to the 0.5 mm radius as shown on the next photo.

Minimum thickness must be **2 mm**.



1. Slider shoe
2. Molding line (this line is not the wear limit)
- A. Wear limit measurement (must be at least 2 mm)

Replace slider shoes when wear limit is reach.



CAUTION

Slider shoes must always be replaced in pairs.

Running Conditions

The following conditions may cause abnormal slider shoe wear:

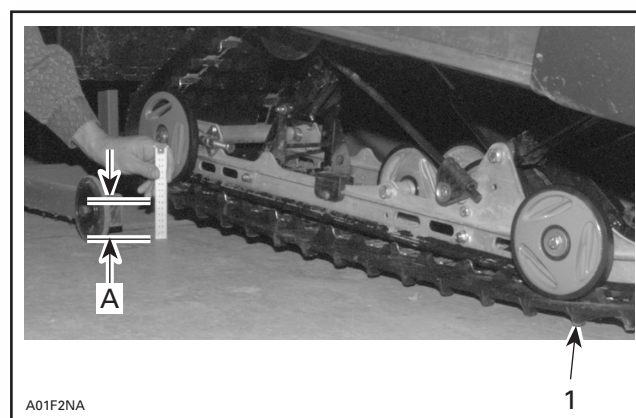
- ice
- mild temperature during day then frozen temperature during evening/night
- high speed on frozen lake
- lack of snow

Stopper Strap Adjustment

Lift rear of snowmobile so that track does not touch ground.

Lower snowmobile so that front section of track leans on ground.

Measure the distance between the track and ground at rear. If measure is greater than 5 cm (2 in), shorten stopper strap accordingly.



TYPICAL

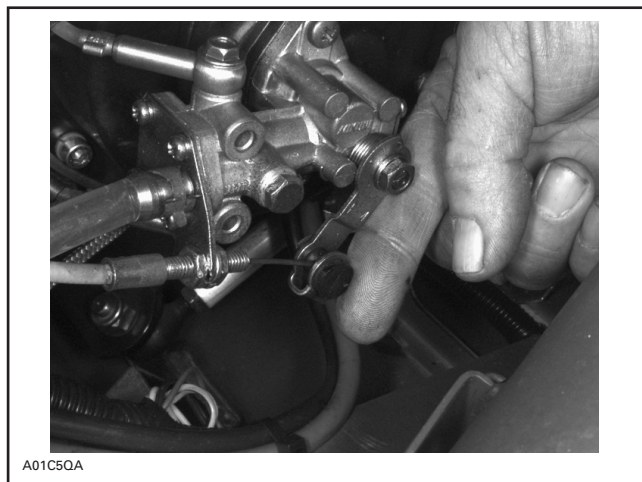
1. Contact surface
- A. 5 cm (2 in) from ground

B) OIL INJECTION PUMP LEVER

On three cylinder engines, oil injection pump lever may stay open when engine is not running.

Inspection Procedure

With engine stopped, move oil injection pump lever to fully opened position, as shown on the following photo.



TYPICAL — LEVER TO FULLY OPENED POSITION

LEVER RETURNS TO ITS ORIGINAL POSITION:

Pump is OK.

LEVER DOES NOT RETURN TO ITS ORIGINAL POSITION:

Start engine; pump lever should automatically return to its original position.

If so, pump is OK.

If not, repeat procedure with pump cable removed.

If pump lever does not return to its original position, check the following:

- Ensure that cable barrel moves freely in pump lever.
- Check pump cable routing (twist).

Reinstall pump cable to pump lever and repeat inspection procedure.

Oil Delivery Table (at 1500 RPM)

Mach Z and Mach Z LT

LEVER OPENING	OIL DELIVERY mL/min
1.5°	0 (+ .06)
19°	2.17 (± .38)
25°	2.92 (± .30)
45°	2.92 (± .30)

Mach 1, G.T. SE, Formula III and Formula III LT

LEVER OPENING	OIL DELIVERY mL/min
2.5°	0 (+ .07)
30°	1.77 (± .20)
40°	2.42 (± .24)
70°	2.42 (± .24)

Refer to *Shop Manual Volume 3*, ENGINE section 03, page 03-05-4.



CAUTION

Oil delivery test must be performed with oil pump removed from vehicle. Never start engine with oil pump removed from engine.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-14**

Date: March 26, 1997

SUBJECT: Loctite Product Application

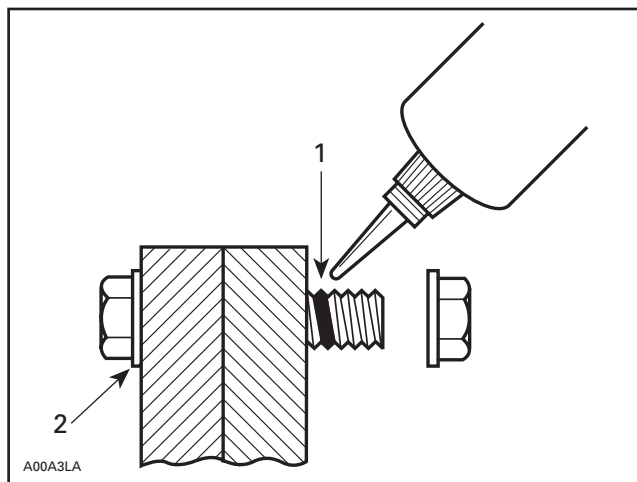
YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

This bulletin describes the most common application procedures when working with Loctite products.

NOTE: Always use proper strength Loctite product as recommended in *Tool Booklet* and *Shop Manual*.

THREADLOCKER

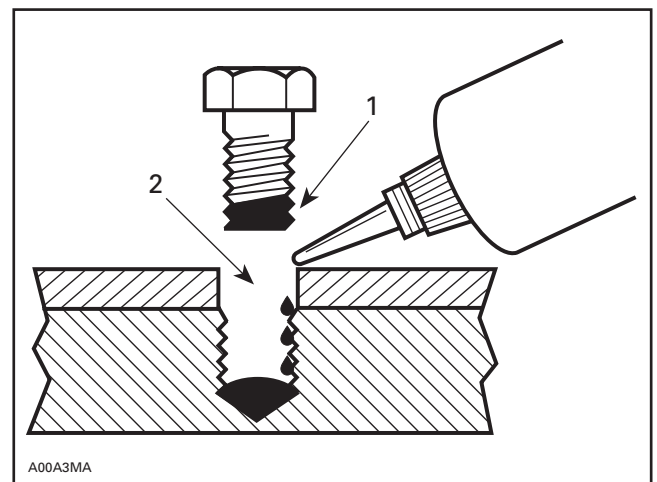
Uncovered Holes (bolts and nuts)



1. Apply here
2. Do not apply

1. Clean threads (bolt and nut) with solvent.
2. Apply Loctite Primer N (P/N 413 7081 00) on threads and allow to dry.
3. Choose proper strength Loctite threadlocker.
4. Fit bolt in the hole.
5. Apply a few drops of threadlocker at proposed tightened nut engagement area.
6. Position nut and tighten as required.

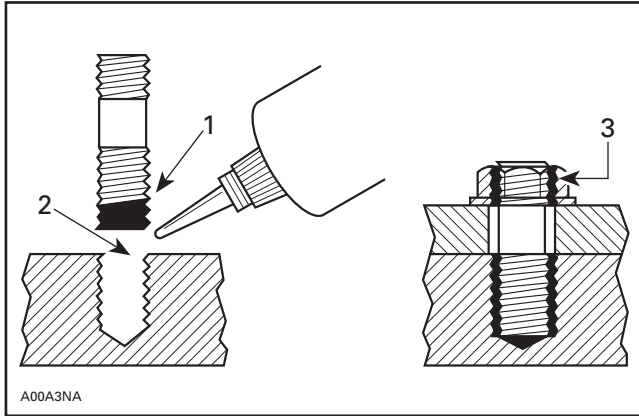
Blind Holes



1. On threads
2. On threads and at the bottom of hole

1. Clean threads (bolt and hole) with solvent.
2. Apply Loctite Primer N (P/N 413 7081 00) on threads (bolt and nut) and allow to dry for 30 seconds.
3. Choose proper strength Loctite threadlocker.
4. Apply several drops along the threaded hole and at the bottom of the hole.
5. Apply several drops on bolt threads.
6. Tighten as required.

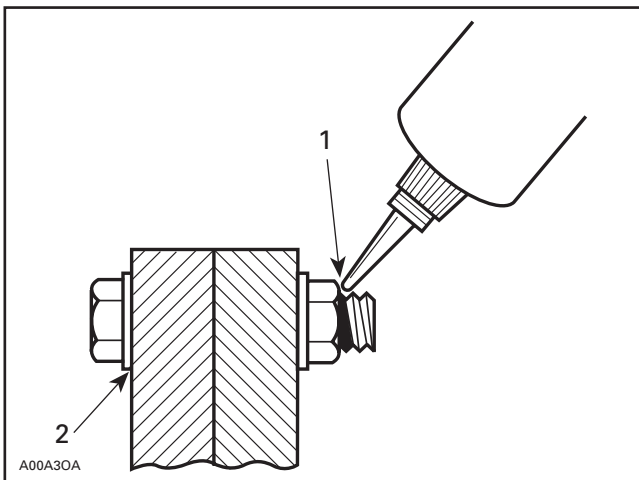
Blind Holes



1. On threads
2. On threads and in the hole
3. Onto nut threads

1. Clean threads (bolt and hole) with solvent.
2. Apply Loctite Primer N (P/N 413 7081 00) on threads and allow to dry.
3. Put several drops of proper strength Loctite threadlocker on female threads and in hole.
4. Apply several drops of proper strength Loctite on stud threads.
5. Install stud.
6. Install cover, head, etc.
7. Apply drops of proper strength Loctite on uncovered threads.
8. Tighten nuts as required.

Preassembled Parts



1. Apply here
2. Do not apply

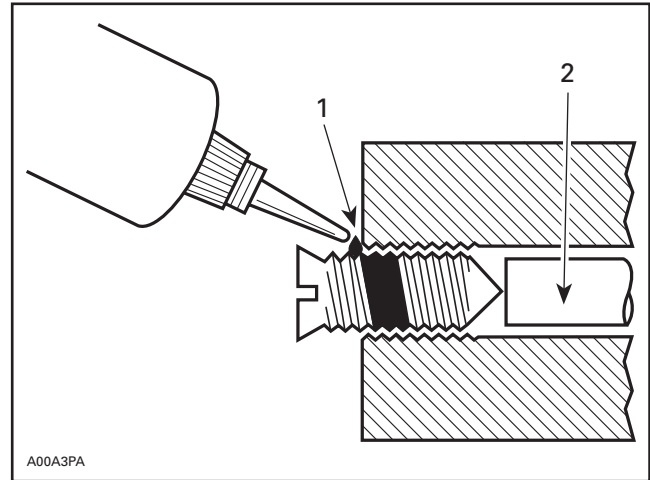
1. Clean bolts and nuts with solvent.
2. Assemble components.
3. Tighten nuts.

4. Apply drops of proper strength Loctite on bolt/nut contact surfaces.

5. Avoid touching metal with tip of flask.

NOTE: For preventive maintenance on existing equipment, retighten nuts and apply proper strength Loctite on bolt/nut contact surfaces.

Adjusting Screw



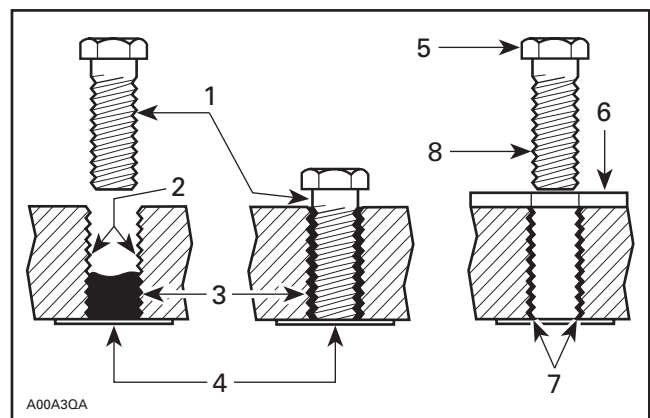
1. Apply here
2. Plunger

1. Adjust screw to proper setting.
2. Apply drops of proper strength Loctite threadlocker on screw/body contact surfaces.
3. Avoid touching metal with tip of flask.

NOTE: If it is difficult to readjust, heat screw with a soldering iron (232°C-450°F).

STRIPPED THREAD REPAIR

Stripped Thread



1. Release agent
2. Stripped threads
3. Form-A-Thread
4. Tape
5. Cleaned bolt
6. Plate
7. New threads
8. Threadlocker

Standard Thread Repair

1. Follow instructions on Loctite FORM-A-THREAD (P/N 413 7086 00) package.
2. If a plate is used to align bolt:
 - a. Apply release agent on mating surfaces.
 - b. Put waxed paper or similar film on the surfaces.
3. Twist bolt when inserting it to improve thread conformation.

NOTE: NOT intended for engine stud repairs.

Repair of Small Holes/Fine Threads

Option 1: Enlarge damaged hole, then follow **Standard Thread Repair** procedure.

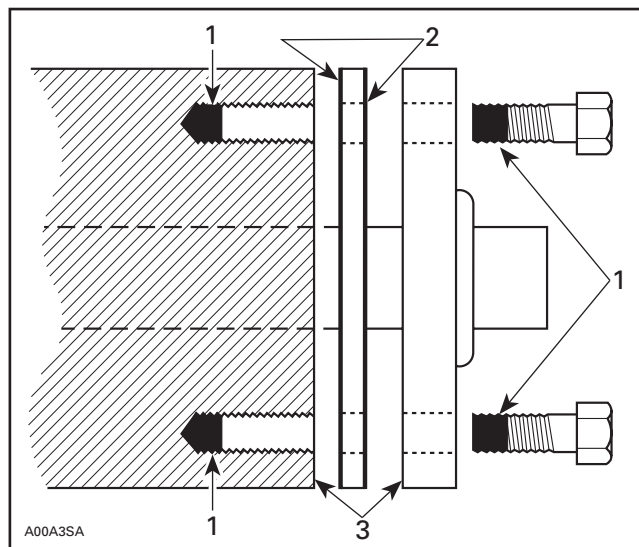
Option 2: Apply FORM-A-THREAD on the screw and insert in damaged hole.

Permanent Stud Installation (light duty)

1. Use a stud or thread on desired length.
2. DO NOT apply release agent on stud.
3. Do a **Standard Thread Repair**.
4. Allow to cure for 30 minutes.
5. Assemble.

GASKET COMPOUND

All Parts



1. Proper strength Loctite
2. Loctite Primer N (P/N 413 7081 00) and Gasket Eliminator 515 (P/N 413 7027 00) on both sides of gasket
3. Loctite Primer N only

1. Remove old gasket and other contaminants with Loctite Chisel remover (P/N 413 7085 00). Use a mechanical mean if necessary.

NOTE: Avoid grinding.

2. Clean both mating surfaces with solvent.
3. Spray Loctite Primer N on both mating surfaces and on both sides of gasket. Allow to dry 1 or 2 minutes.
4. Apply GASKET ELIMINATOR 515 (P/N 413 7027 00) on both sides of gasket, using a clean applicator.
5. Place gasket on mating surfaces and assemble immediately.

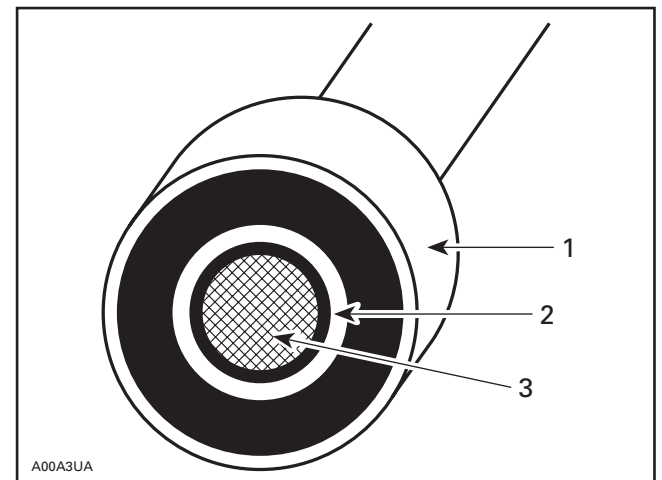
NOTE: If the cover is bolted to blind holes (above), apply proper strength Loctite in the hole and on threads. Tighten.

If holes are sunken, apply proper strength Loctite on bolt threads.

6. Tighten as usual.

MOUNTING ON SHAFT

Mounting with a Press



1. Bearing
2. Proper strength Loctite
3. Shaft

Standard

1. Clean shaft external part and element internal part.
2. Apply a strip of proper strength Loctite on shaft circumference at insert or engagement point.

NOTE: Retaining compound is always forced out when applied on shaft.

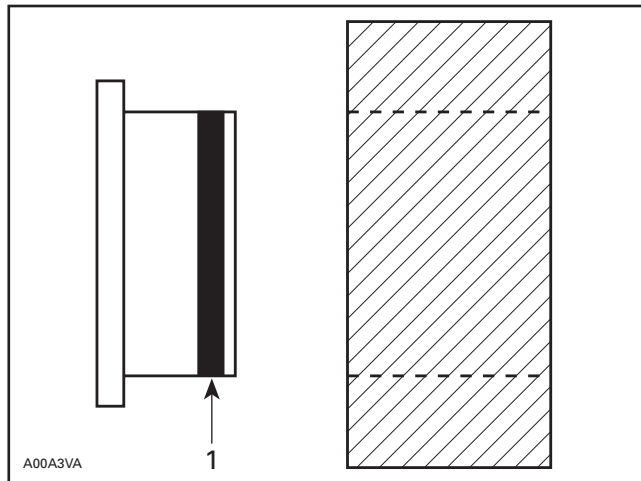
3. DO NOT use anti-seize Loctite or any similar product.
4. No curing period is required.

Mounting in Tandem

1. Apply retaining compound on internal element bore.
2. Continue to assemble as shown above.

CASE-IN COMPONENTS

Metallic Gaskets



1. Proper strength Loctite

1. Clean inner housing diameter and outer gasket diameter.
2. Spray housing and gasket with Loctite Primer N (P/N 413 7081 00).
3. Apply a strip of proper strength Loctite on leading edge of outer metallic gasket diameter.

NOTE: Any Loctite product can be used here. A low strength liquid is recommended as normal strength and gap are required.

4. Install according to standard procedure.
5. Wipe off surplus.
6. Allow it to cure for 30 minutes.

NOTE: Normally used on worn-out housings to prevent leaking or sliding.

It is generally not necessary to remove gasket compound applied on outer gasket diameter.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-15**

Date: March 4, 1997

SUBJECT: Drive Belt

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	Mach* Z/ Mach Z LT	1180/1181/1182 1183/1184/1185	ALL
1997	Mach 1	1177/1178	ALL
1997	Formula* III/ Formula III LT	1148/1149/1150 1151/1152/1153	ALL
1997	MX Z* 670	1193/1194/1195	ALL
1997	Grand Touring* SE	1129/1130/1131	ALL

A new drive belt is now available for the above mentioned models.

PART REQUIRED

DESCRIPTION	P/N
DRIVE BELT	415 1063 00

ORIGINAL PART

DESCRIPTION	P/N
DRIVE BELT	415 0603 00 and 415 0990 00

Drive belt (P/N 415 0603 00 or 415 0990 00) might not meet customer expectations on high performance or bigger displacement applications.

PROCEDURE

Refer to *Shop Manual, Volume 1, Volume 2 or Volume 3* as required, Section 04, TRANSMISSION.

Check driven pulley for proper preload adjustment. Ensure that pulleys are operating properly.

NOTE: Always check engine alignment and ensure that torque rod is properly seated.

PART(S) RETURN

1. Drive belts (P/N 415 0603 00 and P/N 415 0990 00) in dealership inventory can be returned **after March 31st**, over and above the normal annual parts return. The full original price paid will be credited (please use a separate return form for these belts only).
2. Of the total quantity of belts (P/N 415 0603 00 and 415 0990 00) that were ordered throughout this season (up to February 21st, 1997). 10% of that total quantity will be auto-shipped free of charge, in the form of new drive belt(s) (P/N 415 1063 00).

Please note that the new belt will be available in limited quantities and allocated at a rate of approximately 600 per day, starting March 5th, 1997.

The above program was created to assist your dealership to ensure total customer satisfaction.

Please update your *Parts Catalogs* with the new drive belt part number.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-16**

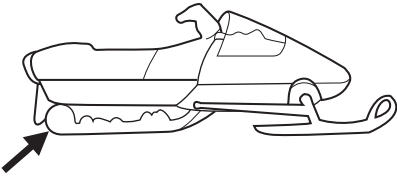
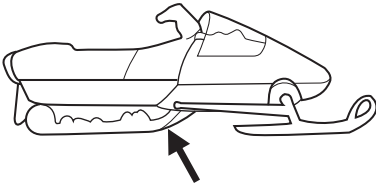
Date: March 4, 1997

SUBJECT: Spring Reference

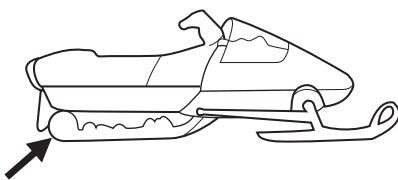
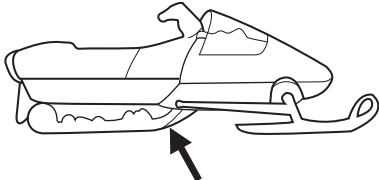
YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

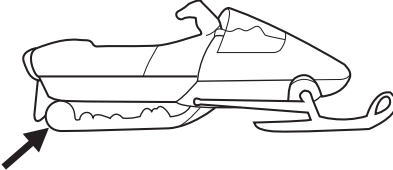
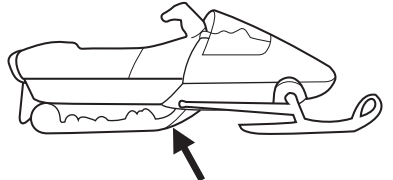
The following tables are intended to annex suspension decal on snowmobiles. These tables describe additional settings for optimum comfort according to load.

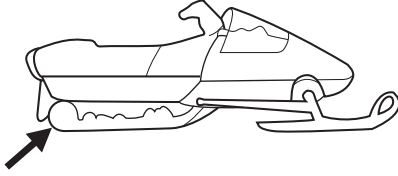
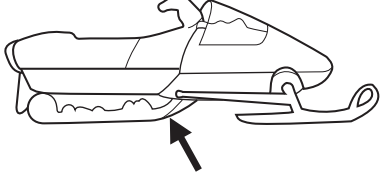
NOTE: The A.C.M.(Accelerator and Control Modulator) nut must be fully tightened when performing suspension adjustments (see *Operator's Guide*).

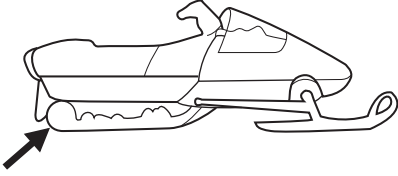
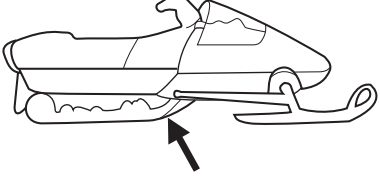
Touring LE, Touring ELT, Skandic 380, 500								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 200 lb	414944200	414944300	1	green	415069900	n/a	SI/YL/YL	black
200 lb to 280 lb	414944200	414944300	2	green	415069900	n/a	SI/YL/YL	black
280 lb to 320 lb	414944200	414944300	3	green	415069900	n/a	SI/YL/YL	black
320 lb to 350 lb	414944200	414944300	4	green	415069900	n/a	SI/YL/YL	black
Option 1								
up to 250 lb	415060700	415060800	1	blue	414771300	n/a	BK/BK	safari red
250 lb to 330 lb	415060700	415060800	2	blue	414771300	n/a	BK/BK	safari red
330 lb to 370 lb	415060700	415060800	3	blue	414771300	n/a	BK/BK	safari red
370 lb to 400 lb	415060700	415060800	4	blue	414771300	n/a	BK/BK	safari red

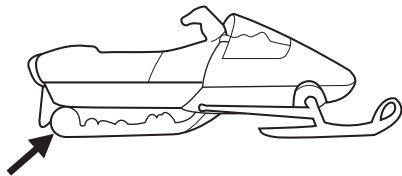
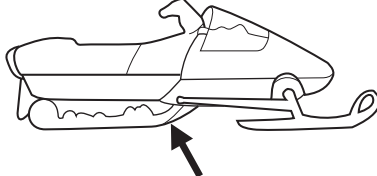
SPRING COLOR CODES	
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW	

Touring E, Formula S, Formula SL								
REAR SPRING 					CENTER SPRING 			
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 125 lb	414866200	414866300	1	yellow	414974500	n/a	OR/WH	black
125 lb to 150 lb	414866200	414866300	2	yellow	414974500	n/a	OR/WH	black
150 lb to 175 lb	414866200	414866300	3	yellow	414974500	n/a	OR/WH	black
175 lb to 200 lb	414866200	414866300	4	yellow	414974500	n/a	OR/WH	black
Option 1								
up to 175 lb	414943500	414943600	1	white	414771300	n/a	BK/BK	safari red
175 lb to 200 lb	414943500	414943600	2	white	414771300	n/a	BK/BK	safari red
200 lb to 225 lb	414943500	414943600	3	white	414771300	n/a	BK/BK	safari red
225 lb to 250 lb	414943500	414943600	4	white	414771300	n/a	BK/BK	safari red
Option 2								
up to 225 lb	415010500	415010600	1	red	414771300	n/a	BK/BK	safari red
225 lb to 250 lb	415010500	415010600	2	red	414771300	n/a	BK/BK	safari red
250 lb to 275 lb	415010500	415010600	3	red	414771300	n/a	BK/BK	safari red
275 lb to 300 lb	415010500	415010600	4	red	414771300	n/a	BK/BK	safari red
Option 3								
up to 275 lb	414944200	414944300	1	green	414771300	n/a	BK/BK	safari red
275 lb to 300 lb	414944200	414944300	2	green	414771300	n/a	BK/BK	safari red
300 lb to 325 lb	414944200	414944300	3	green	414771300	n/a	BK/BK	safari red
325 lb to 350 lb	414944200	414944300	4	green	414771300	n/a	BK/BK	safari red
Option 4								
up to 325 lb	415060700	415060800	1	blue	414771300	n/a	BK/BK	safari red
325 lb to 350 lb	415060700	415060800	2	blue	414771300	n/a	BK/BK	safari red
350 lb to 375 lb	415060700	415060800	3	blue	414771300	n/a	BK/BK	safari red
375 lb to 400 lb	415060700	415060800	4	blue	414771300	n/a	BK/BK	safari red
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

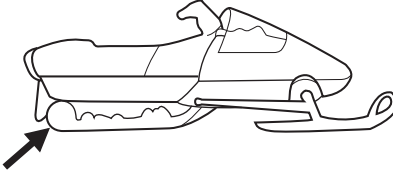
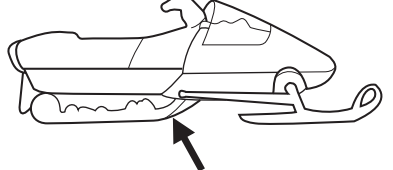
Touring SLE, Grand Touring 500								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 200 lb	414944200	414944300	1	green	415070500	1	BL/YL/YL	black
200 lb to 250 lb	414944200	414944300	2	green	415070500	1	BL/YL/YL	black
250 lb to 300 lb	414944200	414944300	3	green	415070500	2	BL/YL/YL	black
300 lb to 350 lb	414944200	414944300	4	green	415070500	3	BL/YL/YL	black
350 lb to 375 lb	414944200	414944300	4	green	415070500	4	BL/YL/YL	black
375 lb to 400 lb	414944200	414944300	4	green	415070500	5	BL/YL/YL	black
Option 1								
up to 250 lb	415060700	415060800	1	blue	415071000	1	SI/RD/YL	black
250 lb to 300 lb	415060700	415060800	2	blue	415071000	1	SI/RD/YL	black
300 lb to 350 lb	415060700	415060800	3	blue	415071000	2	SI/RD/YL	black
350 lb to 400 lb	415060700	415060800	4	blue	415071000	3	SI/RD/YL	black
400 lb to 425 lb	415060700	415060800	4	blue	415071000	4	SI/RD/YL	black
425 lb to 450 lb	415060700	415060800	4	blue	415071000	5	SI/RD/YL	black
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

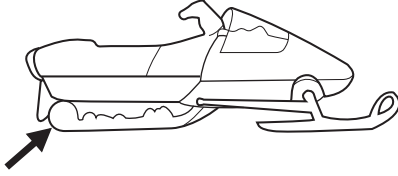
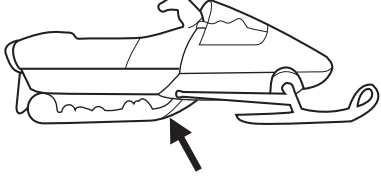
Formula 583, 500, 500 De Luxe, MXZ 440								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	414943500	414943600	1	white	415070100	1	GD/YL/YL	black
150 lb to 180 lb	414943500	414943600	2	white	415070100	2	GD/YL/YL	black
180 lb to 210 lb	414943500	414943600	3	white	415070100	3	GD/YL/YL	black
210 lb to 240 lb	414943500	414943600	4	white	415070100	4	GD/YL/YL	black
240 lb to 265 lb	414943500	414943600	4	white	415070100	5	GD/YL/YL	black
Option 1								
up to 200 lb	415010500	415010600	1	red	415070500	1	BL/YL/YL	black
200 lb to 230 lb	415010500	415010600	2	red	415070500	2	BL/YL/YL	black
230 lb to 265 lb	415010500	415010600	3	red	415070500	3	BL/YL/YL	black
265 lb to 300 lb	415010500	415010600	4	red	415070500	4	BL/YL/YL	black
300 lb to 325 lb	415010500	415010600	4	red	415070500	5	BL/YL/YL	black
Option 2								
up to 250 lb	414944200	414944300	1	green	415070500	1	BL/YL/YL	black
250 lb to 280 lb	414944200	414944300	2	green	415070500	2	BL/YL/YL	black
280 lb to 325 lb	414944200	414944300	3	green	415070500	3	BL/YL/YL	black
325 lb to 350 lb	414944200	414944300	4	green	415070500	4	BL/YL/YL	black
350 lb to 375 lb	414944200	414944300	4	green	415070500	5	BL/YL/YL	black
Option 3								
up to 300 lb	415060700	415060800	1	blue	415070500	1	BL/YL/YL	black
300 lb to 330 lb	415060700	415060800	2	blue	415070500	2	BL/YL/YL	black
330 lb to 375 lb	415060700	415060800	3	blue	415070500	3	BL/YL/YL	black
375 lb to 400 lb	415060700	415060800	4	blue	415070500	4	BL/YL/YL	black
400 lb to 425 lb	415060700	415060800	4	blue	415070500	5	BL/YL/YL	black
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

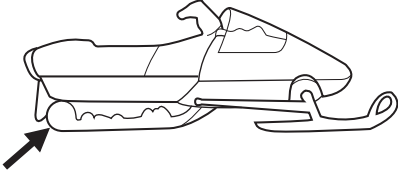
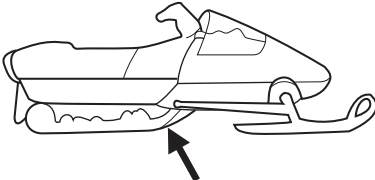
Summit 500, 583, 670								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	414866200	414866300	1	yellow	415070500	1	BL/YL/YL	black
150 lb to 180 lb	414866200	414866300	2	yellow	415070500	2	BL/YL/YL	black
180 lb to 210 lb	414866200	414866300	3	yellow	415070500	3	BL/YL/YL	black
210 lb to 240 lb	414866200	414866300	4	yellow	415070500	4	BL/YL/YL	black
240 lb to 265 lb	414866200	414866300	4	yellow	415070500	5	BL/YL/YL	black
Option 1								
up to 200 lb	414943500	414943600	1	white	415071000	1	SI/RD/YL	black
200 lb to 230 lb	414943500	414943600	2	white	415071000	2	SI/RD/YL	black
230 lb to 265 lb	414943500	414943600	3	white	415071000	3	SI/RD/YL	black
265 lb to 300 lb	414943500	414943600	4	white	415071000	4	SI/RD/YL	black
300 lb to 325 lb	414943500	414943600	4	white	415071000	5	SI/RD/YL	black
Option 2								
up to 250 lb	415010500	415010600	1	red	415071000	1	SI/RD/YL	black
250 lb to 280 lb	415010500	415010600	2	red	415071000	2	SI/RD/YL	black
280 lb to 325 lb	415010500	415010600	3	red	415071000	3	SI/RD/YL	black
325 lb to 350 lb	415010500	415010600	4	red	415071000	4	SI/RD/YL	black
350 lb to 375 lb	415010500	415010600	4	red	415071000	5	SI/RD/YL	black
Option 3								
up to 300 lb	414944200	414944300	1	green	415071000	1	SI/RD/YL	black
300 lb to 330 lb	414944200	414944300	2	green	415071000	2	SI/RD/YL	black
330 lb to 375 lb	414944200	414944300	3	green	415071000	3	SI/RD/YL	black
375 lb to 400 lb	414944200	414944300	4	green	415071000	4	SI/RD/YL	black
400 lb to 425 lb	414944200	414944300	4	green	415071000	5	SI/RD/YL	black
Option 4								
up to 350 lb	415060700	415060800	1	blue	415071000	1	SI/RD/YL	black
350 lb to 380 lb	415060700	415060800	2	blue	415071000	2	SI/RD/YL	black
380 lb to 425 lb	415060700	415060800	3	blue	415071000	3	SI/RD/YL	black
425 lb to 450 lb	415060700	415060800	4	blue	415071000	4	SI/RD/YL	black
450 lb to 475 lb	415060700	415060800	4	blue	415071000	5	SI/RD/YL	black
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

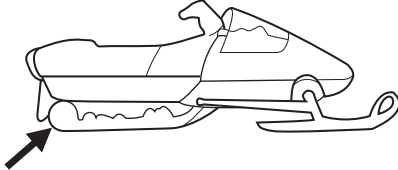
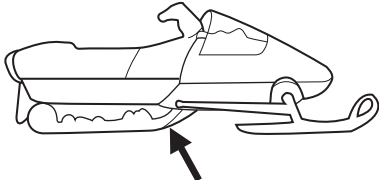
	Grand Touring SE								
	REAR SPRING				CENTER SPRING				
									
	RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE	P/N	CAM POSITION	COLOR CODE	COLOR	AIR PRESSURE
Standard									
up to 175 lb	415010500	415010600	1	red	415057600	3	BL/GD	black	1/8
175 lb to 225 lb	415010500	415010600	1	red	415057600	3	BL/GD	black	1/4
225 lb to 300 lb	415010500	415010600	1	red	415057600	3	BL/GD	black	1/2
300 lb to 350 lb	415010500	415010600	1	red	415057600	3	BL/GD	black	3/4
350 lb to 400 lb	415010500	415010600	2	red	415057600	3	BL/GD	black	3/4
400 lb to 450 lb	415010500	415010600	3	red	415057600	3	BL/GD	black	3/4
450 lb to 500 lb	415010500	415010600	4	red	415057600	3	BL/GD	black	3/4
500 lb to 550 lb	415010500	415010600	4	red	415057600	3	BL/GD	black	4/4
Option 1									
up to 225 lb	414944200	414944300	1	green	415057600	3	BL/GD	black	1/8
225 lb to 275 lb	414944200	414944300	1	green	415057600	3	BL/GD	black	1/4
275 lb to 325 lb	414944200	414944300	1	green	415057600	3	BL/GD	black	1/2
325 lb to 385 lb	414944200	414944300	1	green	415057600	3	BL/GD	black	3/4
385 lb to 440 lb	414944200	414944300	2	green	415057600	3	BL/GD	black	3/4
440 lb to 500 lb	414944200	414944300	3	green	415057600	3	BL/GD	black	3/4
500 lb to 550 lb	414944200	414944300	4	green	415057600	3	BL/GD	black	3/4
550 lb to 600 lb	414944200	414944300	4	green	415057600	3	BL/GD	black	4/4
Option 2									
up to 275 lb	415060700	415060800	1	blue	415057600	3	BL/GD	black	1/8
275 lb to 325 lb	415060700	415060800	1	blue	415057600	3	BL/GD	black	1/4
325 lb to 375 lb	415060700	415060800	1	blue	415057600	3	BL/GD	black	1/2
375 lb to 435 lb	415060700	415060800	1	blue	415057600	3	BL/GD	black	3/4
435 lb to 490 lb	415060700	415060800	2	blue	415057600	3	BL/GD	black	3/4
490 lb to 550 lb	415060700	415060800	3	blue	415057600	3	BL/GD	black	3/4
550 lb to 600 lb	415060700	415060800	4	blue	415057600	3	BL/GD	black	3/4
600 lb to 650 lb	415060700	415060800	4	blue	415057600	3	BL/GD	black	4/4

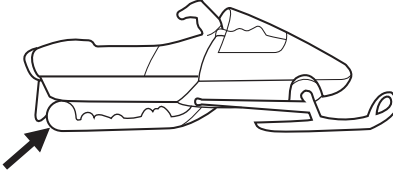
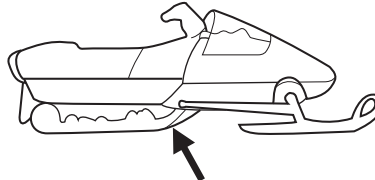
SPRING COLOR CODES									
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW									

Formula Z								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	415010500	415010600	1	red	415070400	1	GN/YL/YL	black
150 lb to 180 lb	415010500	415010600	2	red	415070400	2	GN/YL/YL	black
180 lb to 210 lb	415010500	415010600	3	red	415070400	3	GN/YL/YL	black
210 lb to 250 lb	415010500	415010600	4	red	415070400	4	GN/YL/YL	black
250 lb to 275 lb	415010500	415010600	4	red	415070400	5	GN/YL/YL	black
Option 1								
up to 200 lb	414944200	414944300	1	green	414771300	1	BK/BK	safari red
200 lb to 230 lb	414944200	414944300	2	green	414771300	2	BK/BK	safari red
230 lb to 260 lb	414944200	414944300	3	green	414771300	3	BK/BK	safari red
260 lb to 300 lb	414944200	414944300	4	green	414771300	4	BK/BK	safari red
300 lb to 325 lb	414944200	414944300	4	green	414771300	5	BK/BK	safari red
Option 2								
up to 250 lb	415060700	415060800	1	blue	414771300	1	BK/BK	safari red
250 lb to 280 lb	415060700	415060800	2	blue	414771300	2	BK/BK	safari red
280 lb to 310 lb	415060700	415060800	3	blue	414771300	3	BK/BK	safari red
310 lb to 350 lb	415060700	415060800	4	blue	414771300	4	BK/BK	safari red
350 lb to 375 lb	415060700	415060800	4	blue	414771300	5	BK/BK	safari red
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

Formula III LT, Mach Z LT								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	414943500	414943600	1	white	415057600	1	BL/GD	black
150 lb to 180 lb	414943500	414943600	2	white	415057600	2	BL/GD	black
180 lb to 210 lb	414943500	414943600	3	white	415057600	3	BL/GD	black
210 lb to 250 lb	414943500	414943600	4	white	415057600	4	BL/GD	black
250 lb to 275 lb	414943500	414943600	4	white	415057600	5	BL/GD	black
Option 1								
up to 200 lb	415010500	415010600	1	red	415070700	1	YL/YL/YL	black
200 lb to 230 lb	415010500	415010600	2	red	415070700	2	YL/YL/YL	black
230 lb to 260 lb	415010500	415010600	3	red	415070700	3	YL/YL/YL	black
260 lb to 300 lb	415010500	415010600	4	red	415070700	4	YL/YL/YL	black
300 lb to 325 lb	415010500	415010600	4	red	415070700	5	YL/YL/YL	black
Option 2								
up to 250 lb	414944200	414944300	1	green	415070700	1	YL/YL/YL	black
250 lb to 280 lb	414944200	414944300	2	green	415070700	2	YL/YL/YL	black
280 lb to 310 lb	414944200	414944300	3	green	415070700	3	YL/YL/YL	black
310 lb to 350 lb	414944200	414944300	4	green	415070700	4	YL/YL/YL	black
350 lb to 375 lb	414944200	414944300	4	green	415070700	5	YL/YL/YL	black
Option 3								
up to 300 lb	415060700	415060800	1	blue	415070700	1	YL/YL/YL	black
300 lb to 330 lb	415060700	415060800	2	blue	415070700	2	YL/YL/YL	black
330 lb to 360 lb	415060700	415060800	3	blue	415070700	3	YL/YL/YL	black
360 lb to 400 lb	415060700	415060800	4	blue	415070700	4	YL/YL/YL	black
400 lb to 425 lb	415060700	415060800	4	blue	415070700	5	YL/YL/YL	black
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

Grand Touring 583								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 190 lb	414944200	414944300	1	green	415070600	1	RD/YL/YL	black
190 lb to 250 lb	414944200	414944300	2	green	415070600	2	RD/YL/YL	black
250 lb to 300 lb	414944200	414944300	3	green	415070600	3	RD/YL/YL	black
300 lb to 350 lb	414944200	414944300	4	green	415070600	4	RD/YL/YL	black
350 lb to 375 lb	414944200	414944300	4	green	415070600	5	RD/YL/YL	black
Option 1								
up to 240 lb	415060700	415060800	1	blue	415057600	1	BL/GD	black
240 lb to 300 lb	415060700	415060800	2	blue	415057600	2	BL/GD	black
300 lb to 350 lb	415060700	415060800	3	blue	415057600	3	BL/GD	black
350 lb to 400 lb	415060700	415060800	4	blue	415057600	4	BL/GD	black
400 lb to 425 lb	415060700	415060800	4	blue	415057600	5	BL/GD	black
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

MXZ 583, 670								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	414943500	414943600	1	white	415070300	1	OR/YL/YL	black
150 lb to 180 lb	414943500	414943600	2	white	415070300	2	OR/YL/YL	black
180 lb to 210 lb	414943500	414943600	3	white	415070300	3	OR/YL/YL	black
210 lb to 250 lb	414943500	414943600	4	white	415070300	5	OR/YL/YL	black
250 lb to 265 lb	414943500	414943600	4	white	415070300	6	OR/YL/YL	black
265 lb to 280 lb	414943500	414943600	4	white	415070300	7	OR/YL/YL	black
Option 1								
up to 200 lb	415010500	415010600	1	red	414976100	1	PI/YL	red viper
200 lb to 230 lb	415010500	415010600	2	red	414976100	2	PI/YL	red viper
230 lb to 260 lb	415010500	415010600	3	red	414976100	3	PI/YL	red viper
260 lb to 300 lb	415010500	415010600	4	red	414976100	5	PI/YL	red viper
300 lb to 315 lb	415010500	415010600	4	red	414976100	6	PI/YL	red viper
315 lb to 330 lb	415010500	415010600	4	red	414976100	7	PI/YL	red viper
Option 2								
up to 250 lb	414944200	414944300	1	green	414976100	1	PI/YL	red viper
250 lb to 280 lb	414944200	414944300	2	green	414976100	2	PI/YL	red viper
280 lb to 310 lb	414944200	414944300	3	green	414976100	3	PI/YL	red viper
310 lb to 350 lb	414944200	414944300	4	green	414976100	5	PI/YL	red viper
350 lb to 365 lb	414944200	414944300	4	green	414976100	6	PI/YL	red viper
365 lb to 380 lb	414944200	414944300	4	green	414976100	7	PI/YL	red viper
Option 3								
up to 300 lb	415060700	415060800	1	blue	414976100	1	PI/YL	red viper
300 lb to 330 lb	415060700	415060800	2	blue	414976100	2	PI/YL	red viper
330 lb to 360 lb	415060700	415060800	3	blue	414976100	3	PI/YL	red viper
360 lb to 400 lb	415060700	415060800	4	blue	414976100	5	PI/YL	red viper
400 lb to 415 lb	415060700	415060800	4	blue	414976100	6	PI/YL	red viper
415 lb to 430 lb	415060700	415060800	4	blue	414976100	7	PI/YL	red viper
SPRING COLOR CODES								
BK = BLACK BL = BLUE GD = GOLD GN = GREEN OR = ORANGE PI = PINK RD = RED SI = SILVER WH = WHITE YL = YELLOW								

Formula III, Mach 1, Mach Z								
REAR SPRING					CENTER SPRING			
								
RIGHT P/N	LEFT P/N	CAM POSITION	COLOR CODE		P/N	CAM POSITION	COLOR CODE	COLOR
Standard								
up to 150 lb	414943500	414943600	1	white	415057500	1	RD/GD	black
150 lb to 180 lb	414943500	414943600	2	white	415057500	2	RD/GD	black
180 lb to 210 lb	414943500	414943600	3	white	415057500	3	RD/GD	black
210 lb to 250 lb	414943500	414943600	4	white	415057500	5	RD/GD	black
250 lb to 265 lb	414943500	414943600	4	white	415057500	6	RD/GD	black
265 lb to 280 lb	414943500	414943600	4	white	415057500	7	RD/GD	black
Option 1								
up to 200 lb	415010500	415010600	1	red	415057600	1	BL/GD	black
200 lb to 230 lb	415010500	415010600	2	red	415057600	2	BL/GD	black
230 lb to 260 lb	415010500	415010600	3	red	415057600	3	BL/GD	black
260 lb to 300 lb	415010500	415010600	4	red	415057600	5	BL/GD	black
300 lb to 315 lb	415010500	415010600	4	red	415057600	6	BL/GD	black
315 lb to 330 lb	415010500	415010600	4	red	415057600	7	BL/GD	black
Option 2								
up to 250 lb	414944200	414944300	1	green	415057600	1	BL/GD	black
250 lb to 280 lb	414944200	414944300	2	green	415057600	2	BL/GD	black
280 lb to 310 lb	414944200	414944300	3	green	415057600	3	BL/GD	black
310 lb to 350 lb	414944200	414944300	4	green	415057600	5	BL/GD	black
350 lb to 365 lb	414944200	414944300	4	green	415057600	6	BL/GD	black
365 lb to 380 lb	414944200	414944300	4	green	415057600	7	BL/GD	black
Option 3								
up to 300 lb	415060700	415060800	1	blue	415057600	1	BL/GD	black
300 lb to 330 lb	415060700	415060800	2	blue	415057600	2	BL/GD	black
330 lb to 360 lb	415060700	415060800	3	blue	415057600	3	BL/GD	black
360 lb to 400 lb	415060700	415060800	4	blue	415057600	5	BL/GD	black
400 lb to 415 lb	415060700	415060800	4	blue	415057600	6	BL/GD	black
415 lb to 430 lb	415060700	415060800	4	blue	415057600	7	BL/GD	black

SPRING COLOR CODES	
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SNOWMOBILES



SERVICE
Bulletin

No. **97-17**

Date: May 5, 1997

SUBJECT: Vehicle Storage Procedure

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

During the summer months or when a vehicle is not being used for more than one month is when proper storage is a necessity. Any worn, broken or damaged parts should be replaced at this time.

◆ WARNING

Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

LUBRICATION/INSPECTION

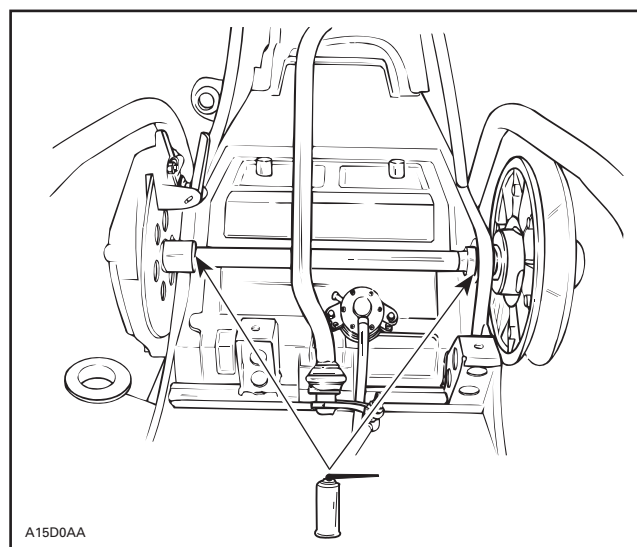
Lubricate the steering mechanism. Inspect all components for tightness.

Oil all moving joints of the brake mechanism.

◆ WARNING

Do not lubricate the throttle and/or brake cables and housings. Avoid getting oil on the brake pads.

For proper operation, brake disc and driven pulley must slide freely on countershaft. Lubricate sparingly.



TYPICAL

▼ CAUTION

Do not lubricate excessively as lubricant could contact and soil brake pads and/or drive belt.

Lubricate remaining recommended lubrication points. Refer to the appropriate *1997 Shop Manual*, section 01.

Coat all electrical connections and switches with silicone dielectric grease (P/N 413 7017 00). If unavailable, use petroleum jelly.

TRACK

Lift rear of vehicle until track is clear of the ground and support with a brace or trestle. Do not release track tension.

FUEL SYSTEM

With the new fuel additives, it is critical to use the fuel stabilizer (Sta-Bil®) (P/N 413 4086 00) (250 mL) to prevent fuel deterioration, gum formation and fuel system components corrosion. Follow instructions on product container.

Pour fuel stabilizer in fuel tank prior to starting engine for internal parts lubrication so that stabilizer flows everywhere in fuel system.

After engine starting, use primer several times so that stabilizer flows inside it.

Do not drain fuel system.

ENGINE

Engine internal parts must be lubricated to protect them from possible rust formation during the storage period.

To perform the storage procedures proceed as follows:

- Start the engine and allow it to run at idle speed until the engine reaches its operating temperature.

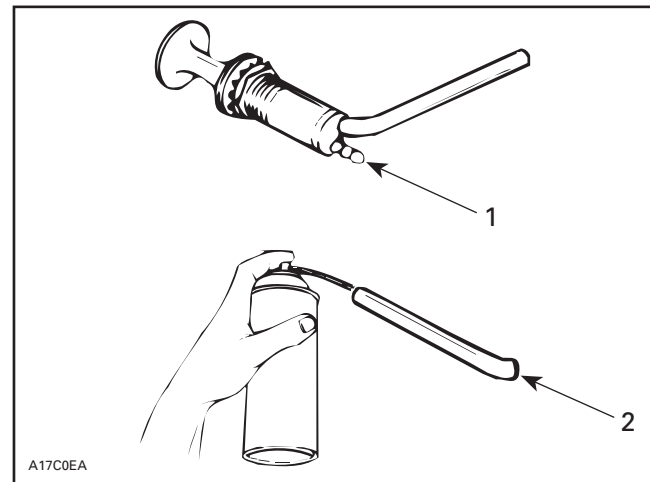
◆ WARNING

Ensure 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.

- Stop the engine.

Models Equipped with a Primer

- To prevent fuel from draining, primer button should be pushed all the way in.
- Disconnect the primer outlet hose from the primer valve (straight coupling).



1. Straight coupling
2. To intake manifold

- Insert storage oil (P/N 496 0141 00) nozzle into primer outlet hose.

Models Equipped with a Choke

Remove air silencer(s) to spray storage oil into each carburetor bore

Refer to the appropriate *1997 Shop Manual*, section 01.

All Models

- Restart engine and run at idle speed.
- Inject storage oil until the engine stalls or until approximately half a can has entered the engine.
- With the engine stopped, remove the spark plug(s) and spray storage oil into each cylinder.
- Crank slowly 2 or 3 revolutions to lubricate cylinder(s).
- Reinstall the spark plugs.

NOTE: If equipped with a primer, reconnect the primer outlet hose to the primer valve.

◆ WARNING

This procedure must only be performed in a well ventilated area. Do not run engine during storage period.

DRIVE AND DRIVEN PULLEYS

Remove belt guard and slip off drive belt.

Spray antirust product on pulleys.

BATTERY (IF APPLICABLE)

The battery should be removed from snowmobile for storage period.

▼ CAUTION

A poorly charged or a discharged battery will freeze and damage its elements and possibly damage its casing and parts surrounding the battery.

Disconnect the battery cables and vent tube then remove the battery from the snowmobile.

◆ WARNING

Always disconnect battery cables, if equipped, exactly in the specified order. Disconnect **BLACK** negative ground cable first, then **RED** positive cable.

Check electrolyte level. Refill as necessary with distilled water. Fully charge battery at a maximum rate of 2.0 A.

◆ WARNING

Gases given off by a battery being charged are highly explosive. Always charge in a well ventilated area. Keep battery away from cigarettes or open flames. Avoid skin contact with electrolyte.

Before storing the battery clean outside surface with a solution of baking soda and water. Remove all deposits from posts then rinse with tap water.

▼ CAUTION

Do not allow cleaning solution to enter battery interior since it will destroy the electrolyte.

Coat battery posts with silicone dielectric grease (P/N 413 7017 00) or petroleum jelly.

To prevent battery from discharging, store it on a wooden shelf in a cool, dry place. Recharge at least every 40 days.

TRANSMISSION/CHAINCASE

Drain then refill with proper amount of Bombardier chaincase oil.

TRANSMISSION/CHAINCASE OIL TYPE

Bombardier
Synthetic Oil
(P/N 413 8033 00)
(12 x 355 mL)

Bombardier
Mineral Oil
(P/N 413 8019 00)
(16 x 250 mL)

All models with liquid
cooled engine and all
Skandic WT models

All models with fan
cooled engine, except
Skandic WT models.

▼ CAUTION

Do not use other types of oil. Do not mix this synthetic oil with other types of oil.

BODY CARE

Fabrics

To clean the entire vehicle, use only flannel cloths or "Kimmtowels®" wipers no. 58-380 from Kimberly-Clark.

▼ CAUTION

Do not use other types of fabrics on windshield and hood to avoid damaging further surfaces to clean.

▼ CAUTION

For aluminum parts use only aluminum cleaner and follow instructions on container.

Cleaning Products

UTILITY	COMPONENT	PRODUCT	AVAILABLE AT
To clean THIN coats of grease.	Entire snowmobile including metallic parts.	Endust , from Bristol Myers.	Hardware stores or supermarkets.
To clean THICK coats of grease.		Simple Green from Sunshine Makers Inc.	Hardware stores or automotive parts retailers.
To clean grease.	Aluminum parts.	Dursol cleaner.	Hardware stores or automotive parts retailers.
To clean/repair LIGHT scratches.	Windshield and hood.	Slip Streamer Motorcycle Cleaner and Polish.	Automobile parts retailers.
To clean/repair DEEP scratches.		Slip Streamer Motorcycle Windshield Heavy Duty Scratch Remover.	
		Finish job with Slip Streamer Polish.	

Touch up all metal spots where paint has been scratched off. Spray all metal parts with antirust product.

Wax the hood and the painted portion of the frame for better protection.

NOTE: Apply wax on glossy finish only.

FINAL STEPS

Block air intake hole and exhaust system hole using clean cloths.

Protect the vehicle with a cover to prevent dust accumulation during storage.

▼ CAUTION
If snowmobile has to be stored outside it is necessary to cover it with an opaque tarpaulin. This will prevent sun rays and grime from affecting plastic components and vehicle finish.

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SNOWMOBILES



SERVICE
Bulletin

No. **97-18**

Date: May 9, 1997

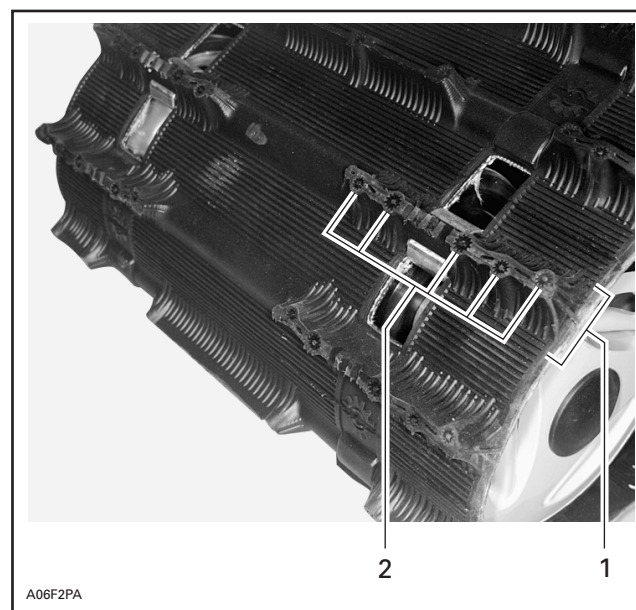
SUBJECT: New Track

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	Mach* Z	1180 (CDN) 1181 (USA) 1182 (EUR)	ALL
1997	Mach 1	1177 (CDN) 1178 (USA) 1179 (EUR)	ALL
1997	Formula* III	1148 (CDN) 1149 (USA) 1150 (EUR)	ALL
1997	MX-Z 670	1193 (CDN) 1194 (USA) 1195 (EUR)	ALL

NEW TRACK

There is a new and improved track available for the above mentioned Ski-Doo models.

The profiles have been reinforced at the base and a new post-like design shape has been added for increased profile strength.



1. Reinforced at base
2. New post-like design shape

PART REQUIRED

DESCRIPTION	P/N
TRACK	570 2123 00

ORIGINAL PART

DESCRIPTION	P/N
TRACK	570 2099 00

PROCEDURE

Refer to the appropriate *1997 Ski-Doo Shop Manual*, Section 06, TRACK.

Please update your *Parts Catalogs* with the new track part number.



Bombardier Inc.
Sea-Doo/Ski-Doo Division

**WE ARE PLEASED TO ANNOUNCE THAT A NEW
AND IMPROVED TRACK IS NOW AVAILABLE FOR
THE SKI-DOO MODELS MENTIONED IN THE
ATTACHED SERVICE BULLETIN NO 97-18.**

IMPORTANT NOTE: Under the terms and conditions of the official warranty text that is contained in the *1997 Ski-Doo Operator's Guide* (P/N 415 0326 00), Bombardier will accept warranty claims that show evidence of a defective track.

PROCEDURE: If you have a customer whose snowmobile track you feel should be covered under warranty, please call one of our service representatives to obtain an authorization number.

Prior to calling for an authorization, please refer to the following troubleshooting tips that detail signs of track abuse that cannot be covered under warranty:

1. Ripped or wear (rubber has a flat and rough appearance instead of shinny). This is typical on a track that suffered heavy spinning on dirt, asphalt etc.).
2. Cut due to sharp and/or foreign objects.
3. Ripped due to track studding.

After-Sales Service Department
Sea-Doo /Ski-Doo Division

Please refer to attached *Service Bulletin no. 97-18*.

Please route to :

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SNOWMOBILES



SERVICE
Bulletin

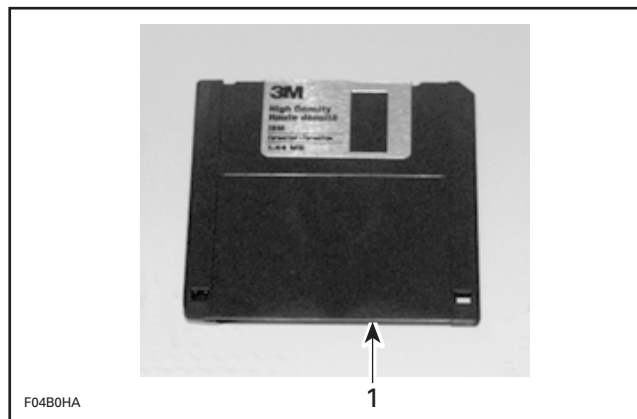
No. **97-19**

Date: May 14, 1997

**SUBJECT: MPEM Programmer Update
Diskette (version 2.3)**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	ALL	ALL	ALL

A new software (version 2.3) to update the MPEM programmer is now available and installation instructions are now written on diskette label.



1. MPEM programmer update diskette 1.44 Mb

SHIPMENT

There is no need to order the diskette. The update diskettes will be auto-shipped free of charge to all North American Dealers and all International Distributors.

One diskette can update all programmers at dealer or distributor locations. If more than one diskette is required, order using P/N 295 000 172 (update diskette version 2.3).

All diskettes should be received before May 30, 1997. If not, order using previous part number.

Please route to :

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SNOWMOBILES



SERVICE
Bulletin

No. **97-20**

Date: June 6, 1997

SUBJECT: MPEM Communication Cable

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	GRAND TOURING SE Cdn/U.S./Europe	1129/1130/1131	ALL

PROGRAMMER UPDATING

In order to perform the updating operation of your MPEM programmer, you will need to use the communication cable, (P/N 278 0010 52); this cable was supplied with the programmer and is used to connect the programmer to your personal computer.

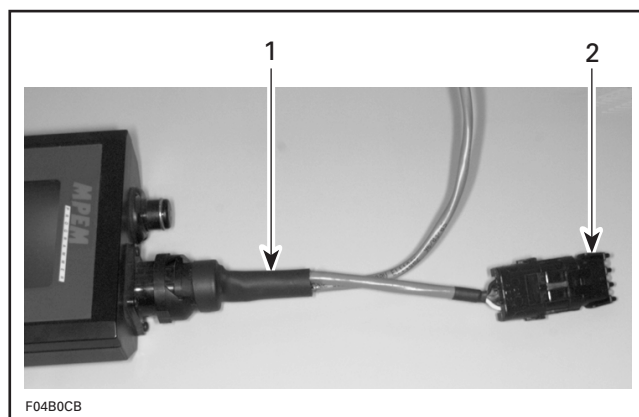
PROCEDURE

P/N	DESCRIPTION	QTY
295 000 172	Update Diskette (1.44 Mb), Version 2.3	1

PART REQUIRED

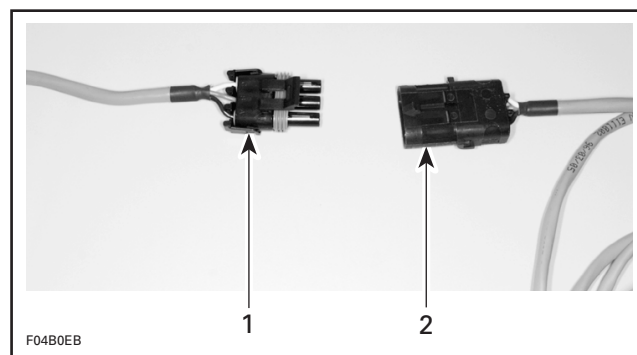
Hardware

Plug the MPEM cable to the MPEM programmer to be updated.



1. MPEM cable plugged to MPEM programmer
2. Remove dust plug

Remove dust plug from 3-connector housing and connect to 3-connector housing on harness going to computer.



1. Update cable
2. MPEM cable

Insert the 1.44 Mb diskette into disk drive.

Software

NOTE: Do not turn on programmer at this point.

MS-DOS Version (3.3 or higher)

Type: A: INSTALL then press **ENTER** (where A: is the drive letter of your disk drive).

MICROSOFT WINDOWS (version 3.1 or higher) and WINDOWS 95

Select Drive A from *File Manager Program*.

Open FILE mpemup.exe.

When INFORMATION Dialog box appears on the screen, press **ENTER**.

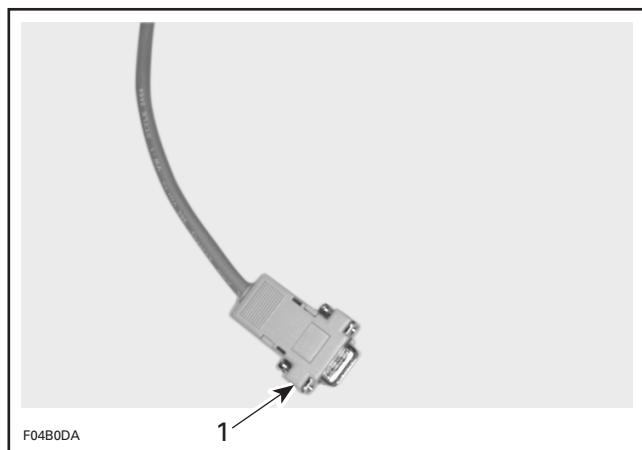
Press **F-10** and press **→** to highlight MPEM at the top left screen, then press **ENTER**.

Select Software Upgrade then press **ENTER**.

At this point, make sure the MPEM programmer is turned OFF.

Connect the Update Cable to Serial port, (COM 1 or COM 2 port) of an IBM Microcomputer, or IBM-Compatible computer.

Press **ALT-P**.



1. Update cable connector

Turn MPEM programmer ON.

MPEM programmer should emit 2 short beeps. If not, check connection.

The message "*Active RS-232 COMMUNICATION*" will appear on the MPEM programmer display.

The computer screen will show 3 uploading levels that will count up to 100% each then stop.

This procedure will take from 3 to 5 minutes.

A message "*the upload operation is successful*" will appear when operation is complete.

Press **ENTER** to confirm uploading operation.

Upgrade is now completed. To exit program, press **ALT-X**.

To continue updating other MPEM programmers, repeat the procedure.

Reinstall dust plug.

Use the existing cable once programmer has been updated.

Application Option

The display screen on the MPEM programmer will continue to show older version until a first use of the programmer is made, then the new version will appear.

APPLICATION	SOFTWARE VERSION
SKI-DOO Dealer	V2.3 M
SEA-DOO Dealer	V2.3 D
SKI-DOO/SEA-DOO Dealer	V2.3 P

In order to preserve the security aspect of the programmer, all dealers must contact the nearest Service Representative to obtain authorization number to modify previous programmer set-up (EX: Sea-Doo to Sea-Doo/Ski-Doo).

This authorization number is essential to operate programmer applications on all new programmer received after December 1996.

If authorization had already been given with previous version, there is no need to contact the Service Representative.

Refer to *MPEM PROGRAMMER GUIDE* (P/N 480 1436 00) for proper procedure.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



**SERVICE
Bulletin**

No. 97-21

Date: June 6, 1997

SUBJECT: Deep Powder Snow Utilization

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	SKANDIC 380 Can/U.S./Europe	1120/1121/1122	ALL
1997	FORMULA S 377 Can/Europe	1108/1109	ALL
1997	TOURING E 377 Can	1115	ALL
1997	TOURING E LT Can	1116	ALL
1997	TOURING LE Can/U.S.	1112/1113	ALL
1997	FORMULA MX Z 440 Can/U.S.	1171/1172	ALL
1997	SKANDIC 500 Can/U.S.	1117/1118	ALL
1997	FORMULA SL Can/U.S.	1106/1107	ALL
1997	FORMULA MX Z 440 LC Can/U.S./Europe	1168/1169/1170	ALL
1997	FORMULA 500 Can/U.S.	1138/1139	ALL
1997	FORMULA 500 Deluxe Can/U.S.	1191/1192	ALL
1997	GR TOURING 500 Can/U.S./Europe	1123/1124/1125	ALL
1997	SUMMIT 500 Can/U.S.	1157/1158	ALL
1997	FORMULA MX Zx 440 Can/U.S.	1269/1270	ALL
1997	FORMULA MX Z 583 Can/U.S.	1160/1161	ALL
1997	GR TOURING 580 Can/U.S.	1126/1127	ALL
1997	FORMULA 583 Can/U.S.	1141/1142	ALL
1997	FORMULA Z Can/U.S.	1145/1146	ALL
1997	SUMMIT 583 Can/U.S.	1159/1160	ALL
1997	FORMULA MX Z Can/U.S.	1187/1188	ALL
1997	SUMMIT 670 Can/U.S.	1162/1163	ALL

When using involved snowmobiles in deep powder snow, it is recommended to install a thicker air intake foam and 4 guillotine type grilles under the hood to avoid snow getting in.

PARTS REQUIRED

Fan Cooled Engine Models

DESCRIPTION	P/N	QTY
Air Intake Foam	415 1060 00	1
Grille Kit	861 7656 00	1

- Replace existing air intake foam with a new thicker one.
- Remove 4 center grilles and install 4 guillotine type grilles using existing attachments.

Liquid Cooled Engine Models

DESCRIPTION	P/N	QTY
Air Intake Foam	415 1059 00	1
Plate	517 2988 00	1
Grille Kit	861 7656 00	1

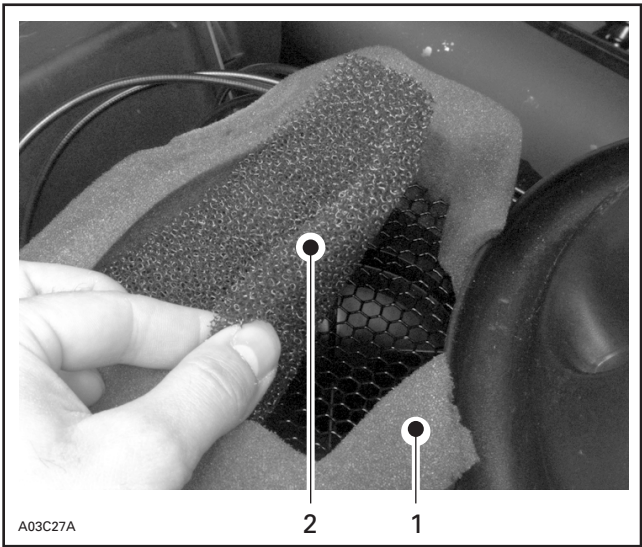
- Install a plate (to be held in place with 2 screws already there), remove and discard “half-U” shape foam (under hood, rear edge), and change air intake foam for a thicker one,
- Remove 4 center grilles and install 4 guillotine type grilles using existing attachments.

PROCEDURE

Fan Cooled Engine Models

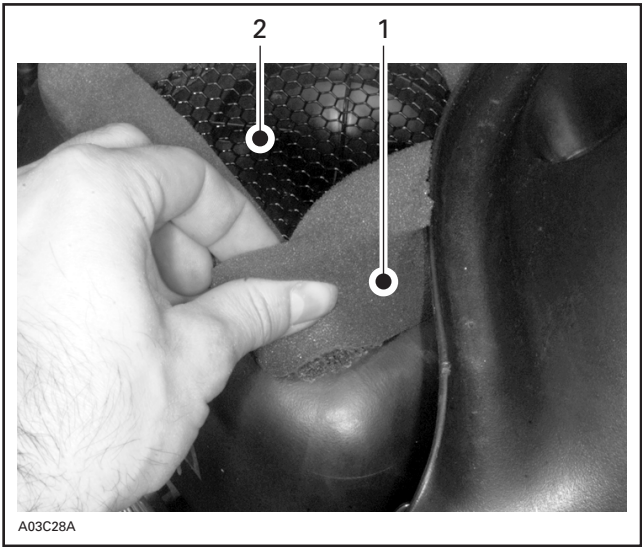
Lift hood.

Remove air intake filter, as shown in the following photo. Keep it.



1. Air intake foam
2. Air intake filter

Pull apart existing air intake foam, as shown in the next photo. Keep air intake filter retainer.



1. Air intake foam
2. Air intake filter retainer

Using Bombardier cleaner (P/N 293 110 001 - 400g), clean the surface and dry thoroughly.

Remove backing from new foam.

Position original air intake filter retainer on air box.

Position new foam and apply pressure to allow good adherence.

Reinstall original air intake filter.



A03C29A

FINAL ASSEMBLY

PROCEDURE

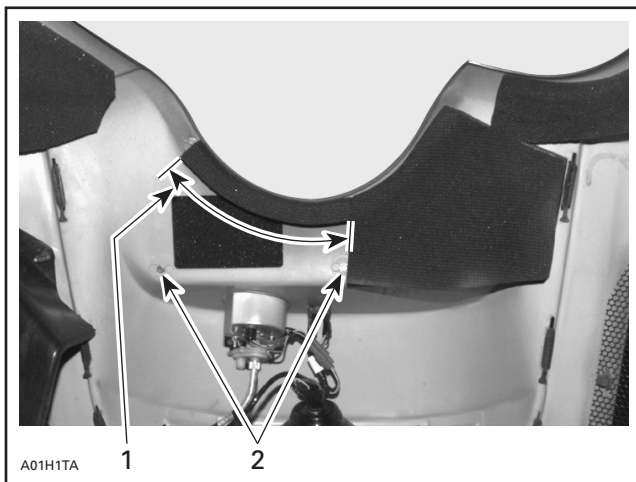
Liquid Cooled Engine Models

Lift hood.

Remove existing "half U Shape" foam at rear edge of hood and discard it.

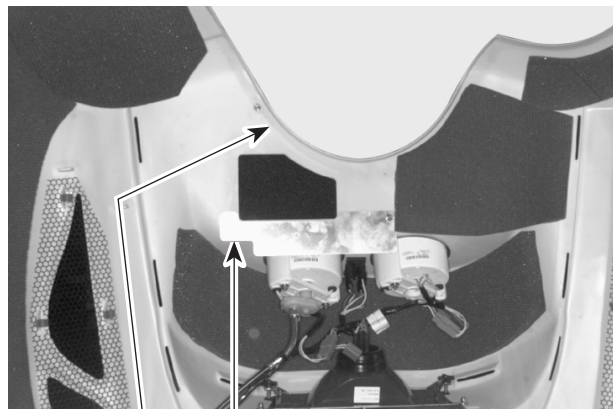
Using Bombardier cleaner (P/N 293 110 001 - 400g), clean the surface thoroughly.

Install plate to complete modification using already existing screws (2). Refer to next photos.



A01H1TA

1. Half "U" shape foam
2. Existing screws



A01H1UA

1. Foam removed
2. Plate installed

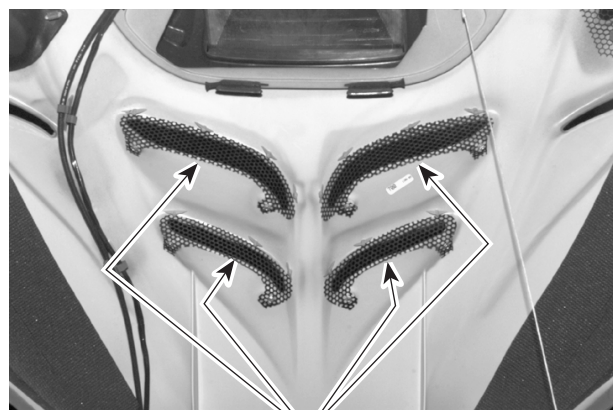
Refer to above mentioned procedure for air intake foam replacement (fan cooled engine models).

PROCEDURE

Grille Replacement (All Models)

Lift hood.

Remove all four center grilles, refer to next photo.



A01H1VA

1. Center grilles

Install 4 new guillotine type grilles using same attachments.

Close hood.

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-23**

Date: September 17, 1997

**SUBJECT: Pre-Season Inspection
(Owner's Expense)**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
ALL	ALL	ALL	ALL

Proper vehicle inspection is necessary after summer months or when a vehicle has not been used for more than one month. Any worn, broken or damaged parts should be replaced.

◆ WARNING

Unless otherwise specified, engine should be turned off for lubrication and inspection procedures.

LUBRICATION/INSPECTION

Lubricate the steering mechanism. **Inspect all components for tightness.**

For proper operation, brake disc and driven pulley must slide freely on countershaft. Lubricate sparingly.

◆ WARNING

Do not lubricate the throttle and/or brake cables and housings. Avoid getting oil on the brake pads.

Lubricate remaining recommended lubrication points. Refer to *Shop Manual*.

FUEL SYSTEM

Remove rags from air intake and exhaust system. Check fuel filter in reservoir for any damages. Replace if necessary.

Check fuel valve and primer/choke for proper operation.

Inspect fuel system for any leaks.

Inspect throttle cables for proper synchronization. Refer to section **ENGINE (CARBURETOR AND FUEL PUMP)** in *Shop Manual*.

ENGINE

Perform a leak test on the engine to check all seals and gaskets. Refer to section **ENGINE (LEAK TEST)** in *Shop Manual*.

Check oil level in oil tank, add oil if necessary.

▼ CAUTION

Use Bombardier Rotax injection oil mineral or synthetic.

Check condition of spark plugs. Replace if necessary. Refer to section **ELECTRICAL (SPARK PLUGS)** in *Shop Manual*.

COOLING SYSTEM

Perform a cooling system leak test as described in section **ENGINE (LEAK TEST)** in *Shop Manual*.

Check coolant level in coolant reservoir. Add coolant if necessary.

TRANSMISSION/CHAINCASE

Check drive chain and adjust if necessary. Chaincase oil should have been changed in the vehicle storage procedure. If not, drain then refill with proper amount of Bombardier synthetic chaincase oil (P/N 413 8033 00). For Élan and Tundra II only, use chaincase oil (P/N 413 8019 00). Refer to section **TRANSMISSION (CHAINCASE)** in *Shop Manual*.

BRAKE SYSTEM

Inspect brake pads for proper thickness. Refer to section **TRANSMISSION (BRAKE)** in *Shop Manual*.

Hydraulic Brake

Check brake fluid in reservoir for proper level. Add fluid (DOT) as required.

▼

CAUTION

Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partially filled bottle of brake fluid.

Mechanical Brake

For vehicles equipped with a ratchet wheel, check for proper ratchet operation. Refer to section **TRANSMISSION (BRAKE)** in *Shop Manual*.

DRIVE AND DRIVEN PULLEYS

Clean drive and driven pulleys.

Check for proper driven pulley alignment and spring pre-load. Refer to section **TRANSMISSION (DRIVE AND DRIVEN PULLEY)** in *Shop Manual*.

Inspect belt for cracks, fraying or abnormal wear. Replace if necessary.

SUSPENSION

Examine all shock absorbers for any leaks if so, replace with new ones.

Rear Suspension

Inspect stopper straps, stopper rubbers, idler wheels, slider shoes and track for abnormal wear.

Front Suspension

Inspect skis and runner shoes, replace if necessary. Refer to section **STEERING/FRONT SUSPENSION (SUSPENSION AND SKI SYSTEM)** in *Shop Manual*.

Ski Alignment

Remove weight on skis prior to alignment by lifting front of snowmobile. Refer to section **STEERING/FRONT SUSPENSION (STEERING SYSTEM)** in appropriate model year *Shop Manual* for proper procedure.

BATTERY (IF EQUIPPED)

Check electrolyte level in battery. Refill if necessary with distilled water. Fully charge battery.

◆

WARNING

Never charge or boost battery while installed on vehicle.

◆

WARNING

Gases given off by a battery being charged are highly explosive. Always charge in a well ventilated area. Keep battery away from open flames. Avoid skin contact with electrolyte.

Reinstall battery in vehicle. Refer to section **ELECTRICAL (BATTERY)** in *Shop Manual* for proper procedure.

◆

WARNING

Always connect the battery cables exactly in the specified order. Connect RED positive cable first, then BLACK negative ground cable.

Check for proper operation of all gauges, switches and DESS system (if applicable).

FINAL INSPECTION

Check rewind starter rope condition.

Inspect all electrical connectors and apply dielectric grease (P/N 413 7017 00), as required.

Inspect spark plug cables condition and proper connection.

Start engine and check for proper engine and electrical operation.

Faire circuler :

☐ Service	☐ Init.
☐ Ventes	☐
☐ Pièces	☐



MOTONEIGES



Bulletin de
SERVICE

No. **97-24**

Date: October 8, 1997

SUBJECT: Skandic WT/SWT Hood Foam

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	SKANDIC* WT	1134/1135	ALL
1997	SKANDIC* SWT	1136/1137	ALL

On the above mentioned models, part of the insulating foam over the engine may come unstuck from hood and partially obstruct the engine cooling fan inlet.

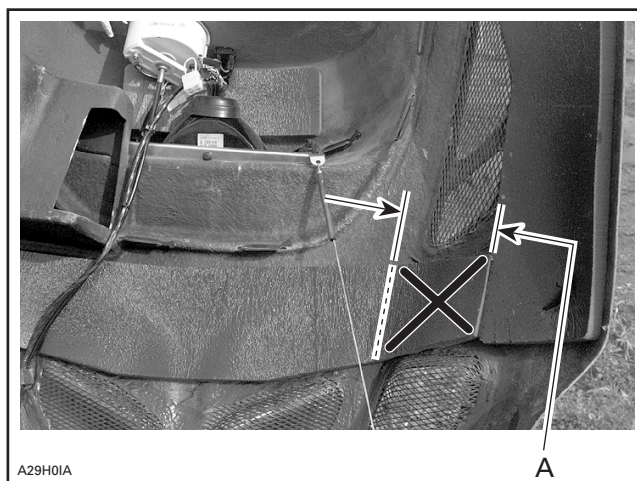
This restriction to the air flow may cause poor engine cooling leading to loss of performance and possibly engine overheating.

To avoid this situation, cut and remove a section of insulating foam from inside the hood located over the engine cooling fan inlet.

Refer to the following illustration for proper location and size of the foam to be cut.

Check all sections of insulating foam inside hood for proper adherence.

Should any section, or part of a section become loose, clean both mating surfaces thoroughly and reglue the insulating foam to the hood using a suitable contact cement.



A. 25 cm (10 in)

Please route to :

☐ Service	☐ Init.
☐ Sales	☐
☐ Parts	☐



SNOWMOBILES



SERVICE
Bulletin

No. **97-22**

Date: July 16, 1997

**SUBJECT: MPEM Programmer Update
Diskette (version 2.4)**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
1997	Grand Touring* SE (Canada)	1129	ALL
1997	Grand Touring* SE (United States)	1130	ALL
1997	Grand Touring* SE (Sweden)	1131	ALL

In order to improve communication between MPEM and programmer, we are introducing the latest version (2.4) of the software.

Updating your programmer with the version 2.4 will avoid damages to MPEM memory when exchanging information with programmer.

Installation instructions are written on diskette label.

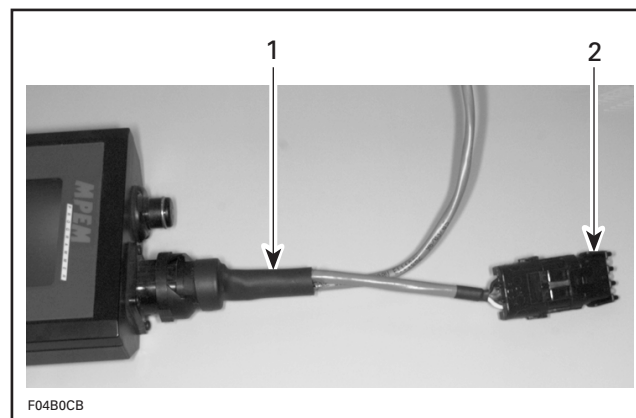


1. MPEM programmer update diskette 1.44 Mb

INSTALLATION

Hardware

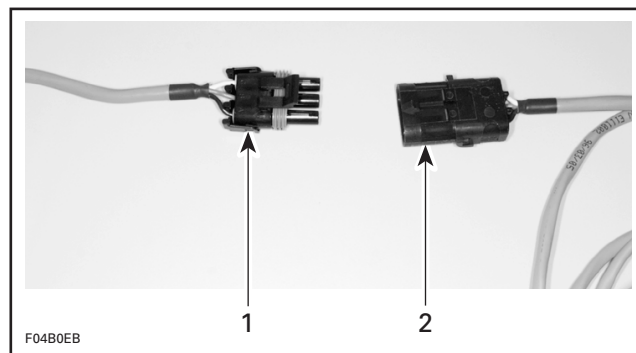
Plug the MPEM cable to the MPEM programmer to be updated.



1. MPEM cable plugged to MPEM programmer
2. Remove dust plug

Remove dust plug from 3-connector housing and connect to 3-connector housing on harness going to computer.

Plug cable to COM 1 or COM 2 port of the computer.



1. Update cable
2. MPEM cable

Insert the 1.44 Mb diskette into disk drive.

Software

NOTE: Do not turn on programmer at this point.

MS-DOS Version (3.3 or higher)

Type: A: INSTALL then press **ENTER** (where A: is the drive letter of your disk drive).

Follow instruction on screen.

MICROSOFT WINDOWS (version 3.1 or higher) and WINDOWS 95.

Select Drive A from File Manager Program.

Open FILE mpemup.exe.

When INFORMATION Dialog box appears on the screen, press **ENTER**.

Press **ALT-M** then **ENTER**.

Follow instruction on screen.

SHIPMENT

There is no need to order the diskette. The update diskettes will be auto-shipped free of charge to all North American Dealers and all International Distributors.

One diskette can update all programmers at dealer or distributor locations. If more than one diskette is required, order using P/N 529 035 200 (update diskette version 2.4).

All diskettes will be shipped from Valcourt starting July 11 and should be received before July 30, 1997. If not, order using previous part number.

Update diskettes version 2.3 (P/N 295 000 172) are not available anymore.