

1988

SNOWMOBILE INDEX - 1988

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BULLETIN NUMBER	AFFECTED MODELS	SUBJECT
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YAMAHA SNOWMOBILES - MOTONEIGES YAMAHA

STARTING SERIAL NUMBERS - NUMÉROS DE DÉBUT DE SÉRIE

September/septembre 1987

S88-001A

1988		1987		1986		1985	
BR250M	83Y-000101	BR250L	82F-000101	BR250K	80V-000101	BR250J	80F-000101
BR250TSM	84A-000101	BR250TSL	82G-000101	BR250TSK	80W-000101	BR250TSJ	80J-000101
BR250TM	84E-000101	BR250TL	82R-000101	BR250TK	81V-000101	BR250TJ	8Y1-000101
CF300M	83U-000101	CF300L	83M-000101	CF300K	81E-000101		
ET340M	83T-000101	ET340L	82H-000101	ET340K	80X-000101	ET340J	8Y2-000101
EC340M	84H-000101	EC340L	82J-000101	EC340K	80Y-000101	EC340J	8Y3-000101
ET340TM	84F-000101	ET340TL	82U-000101	ET340TK	81A-000101	ET340TJ	80E-000101
ET340TRM	84G-000101	ET340TRL	83A-000101	ET340TRK	81W-000101		
PZ480M	84J-000101	PZ480L	82K-000101	PZ480K	81H-000101	PZ480J	80L-000101
PZ480EM	83V-000101	PZ480EL	82L-000101	PZ480EK	81J-000101	PZ480EJ	80K-000101
VMX540M	83X-000101	VMX540L	83H-000101	VMX540K	81K-000101	VMX540J	80N-000101
SR540M	84L-000101	SR540L	82W-000101	SR540K	81G-000101	SR540J	8Y0-000101
XL540M	83W-000101	XL540L	82V-000101	XL540K	81R-000101	XL540J	8Y7-000101
EX570M	84M-000101	EX570L	82M-000101				
EX570EM	84N-000101						
VK540M	84R-000101						
SV80M	85G-000101						
SV80EM	85H-000101						

YAMAHA SNOWMOBILES - MOTONEIGES YAMAHA

STARTING SERIAL NUMBERS - NUMÉROS DE DÉBUT DE SÉRIE

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1984		1983		1982		1981	
BR250H	8V7-045101 R246-045101	BR250G	8UO-029101 R246-029101	BR250F	8R4-010101		
BR250TSH	8X8-053101 R246-053101						
						ET250E	8L2-055101
ET300H	8W6-056101 E294-056101	ET300G	8T5-047101 E294-047101	ET300F	8N6-036101		
ET340H	8W9-152101 E338-152101	ET340G	8T6-115101 E338-115101	ET340F	8N5-103101	ET340E	8L4-052101
EC340H	8W8-146101 E338-146101	EC340G	8T7-132101 E338-132101	EC340F	8R5-108101	EC340E	8L6-067101
ET340TH	8X0-157101 E338-157101	ET340TG	8T9-119101 E338-119101	ET340TF	8R3-106101	ET340TE	8N1-082101
						EX440E	8L5-051101
		SS440G	8U3-047101 SA437-047101	SS440F	8N8-039101	SS440E	8L8-010101
						SRX440E	8M6-000101
PZ480H	8VO-019101						
VMX540H	8X6-004101	VMX540G	8U9-004101				
SR540H	8V9-064101 SA535-064101	SR540G	8U7-055101 SA535-055101	SR540F	8R6-039101	SR540E	8L9-016101
				EC540F	8N7-042101		

YAMAHA SNOWMOBILES - MOTONEIGES YAMAHA

STARTING SERIAL NUMBERS - NUMÉROS DE DÉBUT DE SÉRIE

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1980		1979		1978	
ET250D	8J5-038101	ET250C	8H4-025101	ET250B	8G5-010101
ET300D	8K0-009101	ET300C	8H9-000101		
ET340D	8J6-025101	ET340C	8H5-009101	ET340B	8G8-000101
ET340ED	8J9-040101	ET340EC	8J4-020101		
		GS340C	8F7-076101	GS340B	8F7-072101
				GP440B	8F8-049101
				EX340B	8G7-005101
EX440D	8J7-036101	EX440C	8H6-024101	EX440B	8G5-012101
SS440D	8K4-000101				
SRX440D	8K2-008101	SRX440C	8J0-002101	SRX440B	8G9-000101
				SSR440B	8H0-000101
SR540D	8L0-009101	EXCEL V	8H8-000101		
EC540D	8K1-004101				

BR250M

1988 SERVICE DATA

September 9, 1987



S88-002

MODEL-	BR250M (83Y)
Engine Number/Starting Frame Number	83Y/83Y-000101
ENGINE-	Fan-cooled, Piston-port, Single
Displacement(cc)/Bore X Stroke(mm)	246/70 X 64
Piston Clearance(mm)	0.045~0.050
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	KEIHIN/BD32-28/80F00
Main Jet	#105
Alternate Main Jets	#102, #100, #98
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/4
Power Jet/Pilot(Slow) jet	-----/#78
Float Height(mm)	15±2.0
Idle RPM	APPROX. 1100
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	#100/-----/-----
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	PINK/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3100
Shift RPM	APPROX. 5700
Sheave Center to Center(mm)	APPROX. 266
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	NONE/67.8
Primary Spring Rate(kg-mm)/Preload(kg)	2.40/15
Secondary Spring Colour/Length(mm)	NONE/105
Secondary Spring Rate(kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	13/22
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	750
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	15/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	1.75/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	200/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR8HS/0.6~0.7
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I./YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black:20Ω±10%
Charge Coil Resistance	Brown~Black:426Ω±10%
Lighting Coil Resistance	Yellow~Black:0.23Ω±10%
Primary Ignition Coil Resistance	1.0Ω±15%
Secondary Ignition Coil Resistance	5.9kΩ±15%

BR250TSM
1988 SERVICE DATA
September 9, 1987



S88-003

MODEL-	BR250TSM (84A)
Engine Number/Starting Frame Number	84A/84A-000101
ENGINE-	Fan-cooled, Piston-port, Single
Displacement(cc)/Bore X Stroke(mm)	246/70 X 64
Piston Clearance(mm)	0.045~0.050
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	KEIHIN/BD32-28/80J00
Main Jet	#105
Alternate Main Jets	#102, #100, #98
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/4
Power Jet/Pilot(Slow) jet	-----/#78
Float Height(mm)	15±2
Idle RPM	APPROX. 1100
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	#100/-----/-----
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	PINK/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 2900
Shift RPM	APPROX. 5700
Sheave Center to Center(mm)	APPROX. 266
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	NONE/67.8
Primary Spring Rate(kg-mm)/Preload(kg)	2.40/15
Secondary Spring Colour/Length(mm)	NONE/105
Secondary Spring Rate(kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	12/23
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	750
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	15/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	1.75/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	200/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR8HS/0.6~0.7
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black: 20Ω ±10%
Charge Coil Resistance	Brown~Black: 426Ω ±10%
Lighting Coil Resistance	Yellow~Black: 0.23Ω ±10%
Primary Ignition Coil Resistance	1.0Ω ±15%
Secondary Ignition Coil Resistance	5.9kΩ ±15%

BR250TM

1988 SERVICE DATA

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S88-004

MODEL-	BR250TM (84E)
Engine Number/Starting Frame Number	84E/84E-000101
ENGINE-	Fan-cooled, Piston-port, Single
Displacement(cc)/Bore X Stroke(mm)	246/70 X 64
Piston Clearance(mm)	0.045~0.050
Piston Ring End Gap (Top/2nd) (mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	KEIHIN/BD32-28/80J00
Main Jet	#105
Alternate Main Jets	#102, #100, #98
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/4
Power Jet/Pilot(Slow)jet	-----/#78
Float Height(mm)	15±2
Idle RPM	APPROX. 1100
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	#100/-----/-----
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	PINK/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3200
Shift RPM	APPROX. 5900
Sheave Center to Center(mm)	APPROX. 266
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	GOLD-PINK/69.5
Primary Spring Rate(kg-mm)/Preload(kg)	2.50/20
Secondary Spring Colour/Length(mm)	NONE/105
Secondary Spring Rate(kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	10/24
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/40~50-10
Ski Centre to Centre(mm)	750
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	15/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	1.75/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	200/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR8HS/0.6~0.7
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I./YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black:20Ω±10%
Charge Coil Resistance	Brown~Black:426Ω±10%
Lighting Coil Resistance	Yellow~Black:0.23Ω±10%
Primary Ignition Coil Resistance	1.0Ω±15%
Secondary Ignition Coil Resistance	5.9kΩ±15%

CF300M

1988 SERVICE DATA

September 9, 1987



S88-005

MODEL-	CF300M (83U)
Engine Number/Starting Frame Number	83U/83U-000101
ENGINE-	Liquid-cooled, Piston-port, Single
Displacement(cc)/Bore X Stroke(mm)	292/73 X 70
Piston Clearance(mm)	0.060~0.065
Piston Ring End Gap (Top/2nd) (mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	KEIHIN/BD38-32/83M00
Main Jet	#108
Alternate Main Jets	#110, #105, #102, #100
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/8
Power Jet/Pilot(Slow)jet	-----/#95
Float Height(mm)	15±2.0
Idle RPM	APPROX. 1100
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 1.0/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	ORANGE/25±1-Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3000
Shift RPM	APPROX. 5750
Sheave Center to Center (mm)	APPROX. 266
Sheave Offset (mm)	APPROX. 15
Primary Spring Colour/Length (mm)	GOLD-BROWN/77.5
Primary Spring Rate (kg-mm)/Preload (kg)	1.25/20
Secondary Spring Colour/Length (mm)	NONE/105
Secondary Spring Rate (kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	12/19
Chain Free Play (mm)/Track Tension (mm-kg)	8~15/25~30-10
Ski Centre to Centre (mm)	880
Ski Toe-in or Toe-out (mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	20/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.0/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	200/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	1.9/Aluminum-compatible ethylene glycol/6:4 (Distilled water)
ELECTRICAL-	
Spark Plug/Gap (mm)	NGK BR8ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /MITSUBISHI
Ignition Timing	17° BTDC
Pulser Coil Resistance	White/Red~Black: 20Ω ± 10%
Charge Coil Resistance	Brown~Black: 275Ω ± 10%
	Red~Black: 0.78 ± 10%
Lighting Coil Resistance	Yellow~Black: 0.32Ω ± 10%
Primary Ignition Coil Resistance	1.0Ω ± 15%
Secondary Ignition Coil Resistance	5.9kΩ ± 15%
Battery Type/Spec. Gravity/Charge Rate	YUASA: YB16AL-A2/1.28/1.6A

ET340M

1988 SERVICE DATA

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S88-006

MODEL-	ET340M (83T)
Engine Number/Starting Frame Number	83T/83T-000101
ENGINE-	Fan-cooled, Piston-port, Twin
Displacement(cc)/Bore X Stroke(mm)	337/60 X 59.6
Piston Clearance(mm)	0.040~0.045
Piston Ring End Gap (Top/2nd)(mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I.D. Number	MIKUNI/B38-32/8Y201
Main Jet	#135
Alternate Main Jets	#137.5, #132.5, #131.3, #130, #128.8
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	7/8
Power Jet/Pilot(Slow)jet	-----/#100
Float Height(mm)	15±1
Idle RPM	APPROX. 1700
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 0.7/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	White/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3000
Shift RPM	APPROX. 6600
Sheave Center to Center(mm)	APPROX. 266
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	RED/79.4
Primary Spring Rate(kg-mm)/Preload(kg)	1.40/25
Secondary Spring Colour/Length(mm)	NONE/105
Secondary Spring Rate(kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	13/22
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	850
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	25/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.4/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	400/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black:20Ω±10%
Charge Coil Resistance	Brown~Black:275Ω±10% Red~Black:0.78Ω±10%
Lighting Coil Resistance	Yellow~Black:0.32Ω±10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω±8%/0.15Ω±20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ±20%/3.5kΩ±20%

EC340M

1988 SERVICE DATA

September 9, 1987



S88-007

MODEL-	EC340M (84H)
Engine Number/Starting Frame Number	84H/84H-000101
ENGINE-	Fan-cooled, Piston-port, Twin
Displacement(cc)/Bore X Stroke(mm)	337/60 X 59.6
Piston Clearance(mm)	0.040~0.045
Piston Ring End Gap (Top/2nd) (mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/8V201
Main Jet	#135
Alternate Main Jets	#137.5, #132.5, #131.3, #130, #128.8
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	7/8
Power Jet/Pilot(Slow) jet	-----/#100
Float Height(mm)	15±1
Idle RPM	APPROX. 1700
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	φ 0.7/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	White/25±1-Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3000
Shift RPM	APPROX. 6600
Sheave Center to Center (mm)	APPROX. 266
Sheave Offset (mm)	APPROX. 11
Primary Spring Colour/Length (mm)	RED/79.4
Primary Spring Rate (kg-mm)/Preload (kg)	1.40/25
Secondary Spring Colour/Length (mm)	NONE/105
Secondary Spring Rate (kg-mm/rad)/Preload	183/160°
Secondary Drive Gear Ratio	13/22
Chain Free Play (mm)/Track Tension (mm-kg)	8~15/25~30-10
Ski Centre to Centre (mm)	850
Ski Toe-in or Toe-out (mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	25/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.4/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	400/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap (mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black: 20Ω ± 10%
Charge Coil Resistance	Brown~Black: 275Ω ± 10% Red~Black: 0.78Ω ± 10%
Lighting Coil Resistance	Yellow~Black: 0.32Ω ± 10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω ± 8%/0.15Ω ± 20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ ± 20%/3.5kΩ ± 20%
Battery Type/Spec. Gravity/Charge Rate	YUASA: YB14L-A2/1.28/1.4A

ET340TM

1988 SERVICE DATA

September 9, 1987



S88-008

MODEL-	ET340TM (84F)
Engine Number/Starting Frame Number	84F/84F-000101
ENGINE-	Fan-cooled, Piston-port, Twin
Displacement(cc)/Bore X Stroke(mm)	337/60 X 59.6
Piston Clearance(mm)	0.040~0.045
Piston Ring End Gap (Top/2nd) (mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/80E01
Main Jet	#132.5
Alternate Main Jets	#135, #128.8, #125, #122.5, #121.3
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1.0
Power Jet/Pilot(Slow)jet	-----/#95
Float Height(mm)	15±1
Idle RPM	APPROX. 1600
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 0.7/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	White/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3200
Shift RPM	APPROX. 6500
Sheave Center to Center(mm)	APPROX. 266
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	RED/79.4
Primary Spring Rate(kg-mm)/Preload(kg)	1.40/25
Secondary Spring Colour/Length(mm)	GOLD/127
Secondary Spring Rate(kg-mm/rad)/Preload	187/192°
Secondary Drive Gear Ratio	12/23
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/40~50-10
Ski Centre to Centre(mm)	800
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	25/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.4/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	400/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black:20Ω ±10%
Charge Coil Resistance	Brown~Black:275Ω ±10% Red~Black:0.78Ω ±10%
Lighting Coil Resistance	Yellow~Black:0.32Ω ±10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω ±8%/0.15Ω ±20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ ±20%/3.5kΩ ±20%

ET340TRM

1988 SERVICE DATA

September 9, 1987



S88-009

MODEL-	ET340TRM (84G)
Engine Number/Starting Frame Number	84G/84G-000101
ENGINE-	Fan-cooled, Piston-port, Twin
Displacement(cc)/Bore X Stroke(mm)	337/60 X 59.6
Piston Clearance(mm)	0.040~0.045
Piston Ring End Gap (Top/2nd) (mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/80E01
Main Jet	#132.5
Alternate Main Jets	#135, #128.8, #125, #121.3, #117.5
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1.0
Power Jet/Pilot(Slow) jet	-----/#95
Float Height(mm)	15±1
Idle RPM	APPROX. 1600
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	φ 0.7/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	White/25±1-Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3100
Shift RPM	APPROX. 6500
Sheave Center to Center (mm)	APPROX. 266
Sheave Offset (mm)	APPROX. 11
Primary Spring Colour/Length (mm)	GOLD/73.4
Primary Spring Rate (kg-mm)/Preload (kg)	2.10/25
Secondary Spring Colour/Length (mm)	GOLD/127
Secondary Spring Rate (kg-mm/rad)/Preload	187/192°
Secondary Drive Gear Ratio	14/33
Chain Free Play (mm)/Track Tension (mm-kg)	8~15/40~50-10
Ski Centre to Centre (mm)	800
Ski Toe-in or Toe-out (mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity (L)/Fuel Type	25/Unleaded Regular Gasoline
Oil Tank Capacity (L)/Oil Type	2.4/YAMALUBE 2
Chain Case Capacity (cc)/Oil Grade	300/SAE#75~80, API-GL3
Coolant Capacity (L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap (mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-60/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Red~Black: 20Ω ± 10%
Charge Coil Resistance	Brown~Black: 275Ω ± 10% Red~Black: 0.78Ω ± 10%
Lighting Coil Resistance	Yellow~Black: 0.32Ω ± 10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω ± 8%/0.15Ω ± 20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ ± 20%/3.5kΩ ± 20%

PZ480M

1988 SERVICE DATA

September 9, 1987



S88-010

MODEL-	PZ480M (84J)
Engine Number/Starting Frame Number	84J/84J-000101
ENGINE-	Axial-fan-cooled, Torque-induction, Twin
Displacement(cc)/Bore X Stroke(mm)	485/72 X 59.6
Piston Clearance(mm)	0.045~0.050
Piston Ring End Gap (Top/2nd)(mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/80L01:RH/8V002:LH
Main Jet	#143.8
Alternate Main Jets	#152.5, #150, #147.5, #138.8, #136.3 #131.3, #126.3, #121.3
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/2
Power Jet/Pilot(Slow) jet	-----/#95
Float Height(mm)	12±1
Idle RPM	APPROX. 1600
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	φ 0.5/-----/φ 1.5 mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Black/22±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.15~0.20/1.62~1.80
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3200
Shift RPM	APPROX. 6850
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	Blue-Green/85.1
Primary Spring Rate(kg-mm)/Preload(kg)	1.06/25
Secondary Spring Colour/Length(mm)	Yellow-Light Blue/85
Secondary Spring Rate(kg-mm/rad)/Preload	641/60° (B-1)
Secondary Drive Gear Ratio	17/29
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	856
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	31.8/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I./MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:14Ω ± 10%
Charge Coil Resistance	Brown~Black:556Ω ± 10%
Lighting Coil Resistance	Yellow~Black:0.19Ω ± 10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω ± 8%/0.15Ω ± 20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ ± 20%/3.5kΩ ± 20%

PZ480EM

1988 SERVICE DATA

September 9, 1987



S88-011

MODEL-	PZ480EM (83V)
Engine Number/Starting Frame Number	83V/83V-000101
ENGINE-	Axial-fan-cooled, Torque-induction, Twin
Displacement(cc)/Bore X Stroke(mm)	485/72 X 59.6
Piston Clearance(mm)	0.045~0.050
Piston Ring End Gap (Top/2nd)(mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/80L01:RH/8V002:LH
Main Jet	#143.8
Alternate Main Jets	#152.5, #150, #147.5, #138.8, #136.3 #131.3, #126.3, #121.3
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/2
Power Jet/Pilot(Slow)jet	-----/#95
Float Height(mm)	12±1
Idle RPM	APPROX. 1600
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 0.5/-----/φ 1.5 mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Black/22±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.15~0.20/1.62~1.80
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3200
Shift RPM	APPROX. 6850
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	Blue-Green/85.1
Primary Spring Rate(kg-mm)/Preload(kg)	1.06/25
Secondary Spring Colour/Length(mm)	Yellow-Light Blue/85
Secondary Spring Rate(kg-mm/rad)/Preload	641/60° (B-1)
Secondary Drive Gear Ratio	17/29
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	856
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	31.8/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I. /MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:14Ω ± 10%
Charge Coil Resistance	Brown~Black:556Ω ± 10%
Lighting Coil Resistance	Yellow~Black:0.19Ω ± 10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω ± 8%/0.15Ω ± 20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ ± 20%/3.5kΩ ± 20%
Battery Type/Spec. Gravity/Charge Rate	YUASA:YB14L-A2/1.28/1.4A

VMX540M

1988 SERVICE DATA - UPDATE

February 24, 1988



S88-012A

MODEL-	VMX540M (83X)
Engine Number/Starting Frame Number	83X/83X-000101
ENGINE-	Liquid-cooled, Piston-valve, Twin
Displacement(cc)/Bore X Stroke(mm)	535/73 X 64
Piston Clearance(mm)	0.065~0.075
Piston Ring End Gap (Top/2nd)(mm)	0.35~0.55/0.35~0.55
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUMI/VM38/LH:83XOOL, RH:83XOOR
Main Jet	#290
Alternate Main Jets	#330, #310, #270, #250, #240, #230 #220, #210, #200, #180
Jet Needle (Clip Position)	6DH27(3)
Idle Mixture Screw Turns Out	1
Power Jet/Pilot(Slow)jet	LH #150, RH #130/#40
Float Height(mm)	18.1±1 (without gasket)
Idle RPM	APPROX. 1500
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	—/LH #1.2, RH #1.3/#2.5
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Red/Align with cable adjuster at full throttle
Pump Plunger Stroke(Min/Max)(mm)	0.50~0.55/2.15~2.27
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 4000
Shift RPM	APPROX. 8200
Sheave Center to Center(mm)	APPROX. 305
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	White-Yellow/75.7
Primary Spring Rate(kg-mm)/Preload(kg)	2.20~2.30/30.8~32.7
Secondary Spring Colour/Length(mm)	PINK/85
Secondary Spring Rate(kg-mm/rad)/Preload	794/40° (C-2)
Secondary Drive Gear Ratio	18/33
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	880
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	24/Unleaded Premium Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	3.1/Aluminum-compatible ethylene glycol/6:4(Distilled water)
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9EV/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I. /HITACHI
Ignition Timing	1.6mm BTDC
Pulser Coil Resistance	White/Green~Black:100Ω±10%
Lighting Coil Resistance	Yellow~Black:0.247Ω±10%
Charge Coil Resistance (High)	Red~White/Red:50.5Ω±10%
(Low)	Brown~Red:245Ω±10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω±8%/0.15Ω±20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ±20%/3.5kΩ±20%

SR540M

1988 SERVICE DATA

September 9, 1987



S88-013

MODEL-	SR540M (84L)
Engine Number/Starting Frame Number	84L/84L-000101
ENGINE-	Axial-fan-cooled, Torque-induction, Twin
Displacement(cc)/Bore X Stroke(mm)	535/73 X 64
Piston Clearance(mm)	0.055~0.060
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
Piston Groove Clearance (Top/2nd)(mm)	0.02~0.06/0.02~0.06
CARBURETOR-	
Manufacturer/Type/I. D. Number	KEIHIN/BD44-38/8Y000
Main Jet	#150
Alternate Main Jets	#155, #145, #140, #135, #130, #125 #120
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	2.0
Power Jet/Pilot(Slow)jet	#150/#92
Float Height(mm)	15±2
Idle RPM	APPROX. 1500
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	#100/#170/#180
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Yellow/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3400
Shift RPM	APPROX. 7200
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	Gold-White/74.8
Primary Spring Rate(kg-mm)/Preload(kg)	2.08/27.6
Secondary Spring Colour/Length(mm)	Pink/85
Secondary Spring Rate(kg-mm/rad)/Preload	794/30° (B-1)
Secondary Drive Gear Ratio	17/31
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	880
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	26.6/Unleaded Premium Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9EV/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I./MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:14Ω±10%
Charge Coil Resistance	Brown~Black:556Ω±10%
Lighting Coil Resistance	Yellow~Black:0.19Ω±10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω±8%/0.15Ω±20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ±20%/3.5kΩ±20%

XL540M

1988 SERVICE DATA

September 9, 1987



S88-014

MODEL-	XL540M (83W)
Engine Number/Starting Frame Number	83W/83W-000101
ENGINE-	Axial-fan-cooled, Torque-induction, Twin
Displacement(cc)/Bore X Stroke(mm)	535/73 X 64
Piston Clearance(mm)	0.055~0.060
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B38-32/8Y701
Main Jet	#132.5
Alternate Main Jets	#145, #142.5, #137.5, #130, #127.5 #125, #122.5, #120, #117.5, #115
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/2
Power Jet/Pilot(Slow)jet	-----/#60
Float Height(mm)	12±1
Idle RPM	APPROX. 1200
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 0.8/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Yellow/27±1-Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3400
Shift RPM	APPROX. 6900
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	White-Purple/77.2
Primary Spring Rate(kg-mm)/Preload(kg)	1.59/25
Secondary Spring Colour/Length(mm)	Pink/85
Secondary Spring Rate(kg-mm/rad)/Preload	794/50° (A-2)
Secondary Drive Gear Ratio	17/29
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	875
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	26.6/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I. /MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:14Ω±10%
Charge Coil Resistance	Brown~Black:556Ω±10%
Lighting Coil Resistance	Yellow~Black:0.19Ω±10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12Ω±8%/0.15Ω±20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0kΩ±20%/3.5kΩ±20%
Battery Type/Spec. Gravity/Charge Rate	YUASA:YB14L-A2/1.28/1.6A

EX570M

1988 SERVICE DATA - UPDATE

October 7, 1987



S88-015A

MODEL-	EX570M (84W)
Engine Number/Starting Frame Number	84W/84W-000101
ENGINE-	Liquid-cooled, Piston-valve, Twin
Displacement(cc)/Bore X Stroke(mm)	569/73 X 68
Piston Clearance(mm)	0.070~0.075
Piston Ring End Gap (Top/2nd) (mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUMI/VM38/LH:84MO1L, RH:84MO1R
Main Jet	#320
Alternate Main Jets	#340, #290, #270, #250, #230
Jet Needle (Clip Position)	6DH7 (3)
Idle Mixture Screw Turns Out	5/8
Power Jet/Pilot(Slow) jet	L.H. #160, R.H. #200/#42.5
Float Height(mm)	18.1 ± 1 (without gasket)
Idle RPM	APPROX. 1500
Pilot(Slow) Air Jet/Power Air Jet/Main Air Jet	-----/L.H. ϕ 1.7, R.H. ϕ 1.3/ ϕ 2.5
AUTO LUBE PUMP-	
* Colour/Adjustment(mm)	Align mark with adjuster at full throttle
Pump Plunger Stroke (Min/Max) (mm)	0.15~0.20/1.62~1.80
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3700
Shift RPM	APPROX. 7250
Sheave Center to Center (mm)	APPROX. 268.5
Sheave Offset (mm)	APPROX. 11
Primary Spring Colour/Length (mm)	Gold-green/75.8
Primary Spring Rate (kg-mm)/Preload (kg)	1.75/25
Secondary Spring Colour/Length (mm)	WHITE/93.5
Secondary Spring Rate (kg-mm/rad)/Preload	794/50° (A-2)
Secondary Drive Gear Ratio	17/31
Chain Free Play (mm)/Track Tension (mm-kg)	8~15/25~30-10
Ski Centre to Centre (mm)	920
Ski Toe-in or Toe-out (mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity (L)/Fuel Type	30.5/unleaded premium gasoline
Oil Tank Capacity (L)/Oil Type	3.0/YAMALUBE 2
Chain Case Capacity (cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity (L)/Type/Ratio	4.2/Aluminum-compatible ethylene glycol/6:4 (Distilled water)
ELECTRICAL-	
Spark Plug/Gap (mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I./MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black: $14\Omega \pm 10\%$
Charge Coil Resistance	Brown~Black: $556\Omega \pm 10\%$
Lighting Coil Resistance	Yellow~Black: $0.19\Omega \pm 10\%$
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	$0.12\Omega \pm 8\%/0.15\Omega \pm 20\%$
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	$4.0k\Omega \pm 20\%/3.5k\Omega \pm 20\%$

EX570EM

1988 SERVICE DATA - UPDATE

October 7, 1987



S88-016A

MODEL-	EX570EM (84N)
Engine Number/Starting Frame Number	84N/84N-000101
ENGINE-	Liquid-cooled, Piston-valve, Twin
Displacement(cc)/Bore X Stroke(mm)	569/73 X 68
Piston Clearance(mm)	0.070~0.075
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUMI/VM38/LH:84MO1L, RH:84MO1R
Main Jet	#320
Alternate Main Jets	#340, #290, #270, #250, #230
Jet Needle (Clip Position)	6DH7 (3)
Idle Mixture Screw Turns Out	5/8
Power Jet/Pilot(Slow)jet	L. H. #160, R. H. #200/#42.5
Float Height(mm)	18.1 ± 1 (without gasket)
Idle RPM	APPROX. 1500
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	-----/L. H. ϕ 1.7, R. H. ϕ 1.3/ ϕ 2.5
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Align mark with adjuster at full throttle
Pump Plunger Stroke(Min/Max)(mm)	0.15~0.20/1.62~1.80
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 3700
Shift RPM	APPROX. 7250
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	Gold-green/75.8
Primary Spring Rate(kg-mm)/Preload(kg)	1.75/25
Secondary Spring Colour/Length(mm)	WHITE/93.5
Secondary Spring Rate(kg-mm/rad)/Preload	794/50* (A-2)
Secondary Drive Gear Ratio	17/31
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/25~30-10
Ski Centre to Centre(mm)	920
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	30.5/unleaded premium gasoline
Oil Tank Capacity(L)/Oil Type	3.0/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	250/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	4.2/Aluminum-compatible ethylene glycol/6:4(Distilled water)
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I. /MITSUBISHI
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:14 Ω ± 10%
Charge Coil Resistance	Brown~Black:556 Ω ± 10%
Lighting Coil Resistance	Yellow~Black:0.19 Ω ± 10%
Primary Ignition Coil Resistance (TOYO DENSO/HITACHI)	0.12 Ω ± 8%/0.15 Ω ± 20%
Secondary Ignition Coil Resistance (TOYO DENSO/HITACHI)	4.0k Ω ± 20%/3.5k Ω ± 20%
Battery Type/Spec.Gravity/Charge Rate	YUASA YB16AL-A2/1.28/1.6A

YAMAHA

MOTOR CANADA LTD.
MOTEUR DU CANADA LTÉE

All Snowmobile Dealers

VK540M SERVICE DATA - UPDATE

December 23, 1987



S88-017A

MODEL-	VK540M (84R)
Engine Number/Starting Frame Number	84R/84R-000101
ENGINE-	Axial-fan-cooled, Torque-induction, Twin
Displacement(cc)/Bore X Stroke(mm)	535/73 X 64
Piston Clearance(mm)	0.055~0.060
Piston Ring End Gap (Top/2nd)(mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I.D. Number	MIKUNI/B38-34/84R00
Main Jet	#141.3
Alternate Main Jets	#142.5, #140, #137.5, #135.0, #132.5
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1-1/4
Power Jet/Pilot(Slow)jet	-----/#90
Float Height(mm)	12.7 ± 1
Idle RPM	APPROX. 1200
Pilot(Slow)Air Jet/Power Air Jet/Main Air Jet	φ 0.8/-----/----- mm
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	Black/25±1-Cable Freeplay at idle
Pump Plunger Stroke(Min/Max)(mm)	0.20~0.25/1.65~1.87
DRIVE-	
Primary Sheave Engagement RPM	APPROX. 2500
Shift RPM	APPROX. 6700
Sheave Center to Center(mm)	APPROX. 268.5
Sheave Offset(mm)	APPROX. 11
Primary Spring Colour/Length(mm)	WHITE/71.5
Primary Spring Rate(kg-mm)/Preload(kg)	1.5/15
Secondary Spring Colour/Length(mm)	WHITE/93.5
Secondary Spring Rate(kg-mm/rad)/Preload	721/50° (2)
Secondary Drive Gear Ratio	17/39
Chain Free Play(mm)/Track Tension(mm-kg)	8~15/35~45-10
Ski Centre to Centre(mm)	810
Ski Toe-in or Toe-out(mm)	0~15 (Toe out)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	31/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	2.5/YAMALUBE 2
Chain Case Capacity(cc)/Oil Grade	350/SAE#75~80, API-GL3
Coolant Capacity(L)/Type/Ratio	-----
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR9ES/0.7~0.8
Headlight/Taillight/Meterlight Wattage	60-55/8-23/3.4
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	1.5mm BTDC
Pulser Coil Resistance	White/Red~Black:20Ω ± 20%
Charge Coil Resistance	Brown~Black:275Ω ± 20% Red~Black:0.8Ω ± 20%
Lighting Coil Resistance	Yellow~Black:0.3Ω ± 20%
Primary Ignition Coil Resistance	0.2Ω ± 20%
Secondary Ignition Coil Resistance	4.9kΩ ± 20%

SV80M

1988 SERVICE DATA

September 9, 1987



S88-018

MODEL-	SV80M (85G)
Engine Number/Starting Frame Number	85G/85G-000101
ENGINE-	Fan-cooled, Reed valve, Single
Displacement(cc)/Bore X Stroke(mm)	79/49 X 42
Piston Clearance(mm)	0.035~0.040
Piston Ring End Gap (Top/2nd)(mm)	0.2~0.4/0.15~0.35
CARBURETOR-	
Manufacturer/Type/I.D. Number	MIKUNI/B26-20/85G00
Main Jet	#103.8
Alternate Main Jets	#105, #102.5, #101.3, #100
Idle Mixture Screw Turns Out	7/8
Pilot (Slow) jet	#62.5
Float Height(mm)	15.6±1
Idle RPM	APPROX. 2200
AUTOLUBE PUMP-	
Colour(mm)	Yellow
Pump Plunger Stroke(mm)	0.95±0.05
DRIVE-	
Clutch Engagement RPM	APPROX. 4000
Shift RPM	APPROX. 6700
Secondary Sheave Spring Length(mm)	108.4
Secondary Spring Rate(kgf/mm)/Preload(kgf)	0.55/33
Secondary Drive Gear Ratio	27/44 X 14/46
Track Tension(mm-kg)	25~30-10
Ski Centre to Centre(mm)	695
Ski Toe-in or Toe-out(mm)	0 +35 (Toe out) -25 (Toe in)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	8.6/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	1.3/YAMALUBE 2
Gear Case Capacity(cc)/Oil Grade	200/SAE #75~80, API-GL3
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR8HS/0.6~0.7
Headlight/Taillight Wattage	60-60/8-23
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	16° BTDC
Pulser Coil Resistance	White/Red~Black: 440Ω ± 20%
Charge Coil Resistance	Brown~Black: 560Ω ± 20%
Lighting Coil Resistance	Yellow~Black: 0.7Ω ± 20%
Primary Ignition Coil Resistance	0.7Ω ± 20%
Secondary Ignition Coil Resistance	7.1kΩ ± 20%

SV80EM

1988 SERVICE DATA

September 9, 1987



S88-019

MODEL-	SV80EM (85H)
Engine Number/Starting Frame Number	85H/85H-000101
ENGINE-	Fan-cooled, Reed valve, Single
Displacement(cc)/Bore X Stroke(mm)	79/49 X 42
Piston Clearance(mm)	0.035~0.040
Piston Ring End Gap (Top/2nd)(mm)	0.2~0.4/0.15~0.35
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/B26-20/85G00
Main Jet	#103.8
Alternate Main Jets	#105, #102.5, #101.3, #100
Idle Mixture Screw Turns Out	7/8
Pilot (Slow) jet	#62.5
Float Height(mm)	15.6±1
Idle RPM	APPROX. 2200
AUTOLUBE PUMP-	
Colour(mm)	Yellow
Pump Plunger Stroke(mm)	0.95±0.05
DRIVE-	
Clutch Engagement RPM	APPROX. 4000
Shift RPM	APPROX. 6700
Secondary Sheave Spring Length(mm)	108.4
Secondary Spring Rate(kgf/mm)/Preload(kgf)	0.55/33
Secondary Drive Gear Ratio	27/44 X 14/46
Track Tension(mm-kg)	25~30-10
Ski Centre to Centre(mm)	695
Ski Toe-in or Toe-out(mm)	0 +35 (Toe out) -25 (Toe in)
CAPACITIES-	
Fuel tank Capacity(L)/Fuel Type	8.6/Unleaded Regular Gasoline
Oil Tank Capacity(L)/Oil Type	1.3/YAMALUBE 2
Gear Case Capacity(cc)/Oil Grade	200/SAE #75~80, API-GL3
ELECTRICAL-	
Spark Plug/Gap(mm)	NGK BR8HS/0.6~0.7
Headlight/Taillight Wattage	60-60/8-23
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing	16° BTDC
Pulser Coil Resistance	White/Red~Black: 440Ω ± 20%
Charge Coil Resistance	Brown~Black: 560Ω ± 20%
Lighting Coil Resistance	Yellow~Black: 0.7Ω ± 20%
Primary Ignition Coil Resistance	0.7Ω ± 20%
Secondary Ignition Coil Resistance	7.1kΩ ± 20%
Battery Type/Spec. Gravity/Charge Rate	GS:GM7-3B-1/1.28/0.8A (NIHON DENCHI)

EX570

PRODUCT IMPROVEMENTS

October 7, 1987



S88-023

During the product presentation at the recent '88 Dealer Snowmobile Conferences, (along with product changes on other models), we were pleased to announce that the EX570 model had numerous improvements made for 1988. This achievement was another example of Yamaha's commitment to meet the demands of an expanding market and to help provide increased dealer and customer satisfaction through improved product quality and design.

The purpose of this bulletin is to clarify Yamaha's position in regards to these improvements and to enable you to answer any owner's inquiries on the subject.

In the first place, Yamaha's policy on all products, for several years has been clearly stated in that improvements to product are ongoing and in no way form an obligation to make retrofits to earlier models. To do so would act counter to our efforts to progress. This holds true for the EX570.

Only by a very concentrated effort in the field and a great amount of dedication and hard work by factory design and production engineers during this past season were we able to effect so many changes in such a short time. We are proud of that fact. This was done with the realization of the importance of this model to the market, as evidenced by its instant popularity and strong sales performance.

Some of the improvements made to the 1988 EX570 can be applied to the 1987 models and an outline of them, including application information, will be sent to you shortly in a technical information service bulletin.

The bulletin was issued for information purposes only and no warranty coverage will be considered unless the part being replaced is faulty and the 1988 part can be installed without additional labour or materials being charged.

There may be one exception to the above and this involves the carburetors.

Some customers did not fully enjoy the use of their **EXCITER** snowmobiles last season because of carburetion problems.

The original equipment carburetors on the 1987 model provide excellent performance when properly tuned. However, a percentage of these carburetors had defective flow characteristics and adjustments to eliminate poor throttle response or "bogging" were very difficult. Yamaha will replace these defective carburetors with new '88 slide-type carburetors under warranty in order to satisfy those customers who experienced unresolved carburetion problems last season.

Before exchanging these carburetors you must make absolutely sure that they are defective. All of the normal servicing procedures and adjustments for engine tuning and clutching must have been verified and the unit test ridden to confirm that the carburetors are causing the engine not to perform to its potential.

NOTE: The '88 carburetors will not provide more power than '87 carburetors which are adjusted and functioning properly. Unnecessary replacement will only cause customer dissatisfaction since there will be no noticeable difference in performance.

CARBURETOR EXCHANGE PROGRAM DETAILS

1. The carburetor kit consists of '88 style carburetors, compatible cables, throttle lever and intake manifolds, etc.
2. Unsold units in your dealership may receive the modification only if you have confirmed that the original carburetors are faulty.
3. Order carefully because unused kits cannot be returned to YMCA for credit.
4. The dealer cost for the kit is \$242.91 and it may be ordered after October 30th, through regular parts ordering procedures under part number 90891-50080.
5. Yamaha is paying for the cost of all parts plus the standard handling charge. Yamaha is asking our dealers to help keep the costs down on this comprehensive program by foregoing profits on kit installation. Yamaha will be paying .5 hours flat rate labour for each unit to cover your actual labour costs.
6. The expiration date of this program is March 31, 1988. Any warranty requests submitted after this date will not be accepted.
7. A technical bulletin will be issued to outline the installation and warranty instructions.

All Snowmobile Dealers

VK540M SERVICE MANUAL CORRECTIONS

October 14, 1987



Due to production changes on the VK540M, the Service Manual (part number 84R-28197-20) must be revised to reflect these changes. A copy of the errata sheet, which contains the revised pages, will be distributed by the factory in late October. These updated pages can easily be inserted into your copy of the VK540M Service Manual. For the interim, this bulletin will provide you with the necessary reference material to service your units.

ITEMS TO BE CORRECTED:

1. DRIVE V-BELT INSPECTION: PAGE 2-26

Delete: 6. Adjust:
 • Spacer (Secondary sheave)
 According to V-belt width.

Reason: The secondary sheave is not adjustable.

2. SHEAVE DISTANCE AND OFFSET ADJUSTMENT: PAGE 2-28 to 2-30

Delete: 6. Adjust to 8. Adjust
 • Sheave offset • Secondary sheave
 free play (Clearance)

Reason: The design has been changed. The sheave offset can be adjusted by the position of the engine. Production models have not been equipped with the adjusting shims.

3. HINGED EXTENSION ADJUSTMENT: PAGE 2-38

Correct: 2. Adjust:
 • Hinged extension

Reason: Misprint.

INCORRECT

Extension adjustment step:		
• Turn the adjuster ① in or out until specified position.		
Snow Condition	Adjuster	Rigidity
Hard surface	Turn in	Softer
Loose snow	Turn out	Stiffer

CORRECT

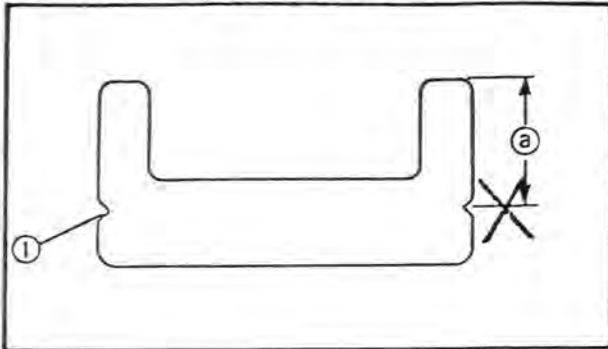
Extension adjustment step:		
• Turn the adjuster ① in or out until specified position.		
Snow Condition	Adjuster	Rigidity
Hard surface	Turn in	Stiffer
Loose snow	Turn out	Softer

4. SLIDE RUNNER INSPECTION: PAGE 2-41

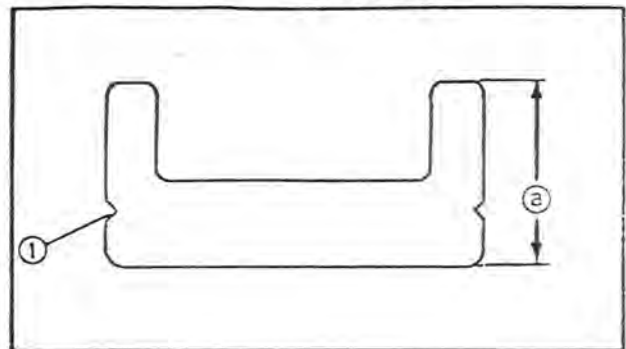
Correct: 2. Measure:
• Slide runner thickness
Out of specification - Replace.

Reason: Misprint.

INCORRECT



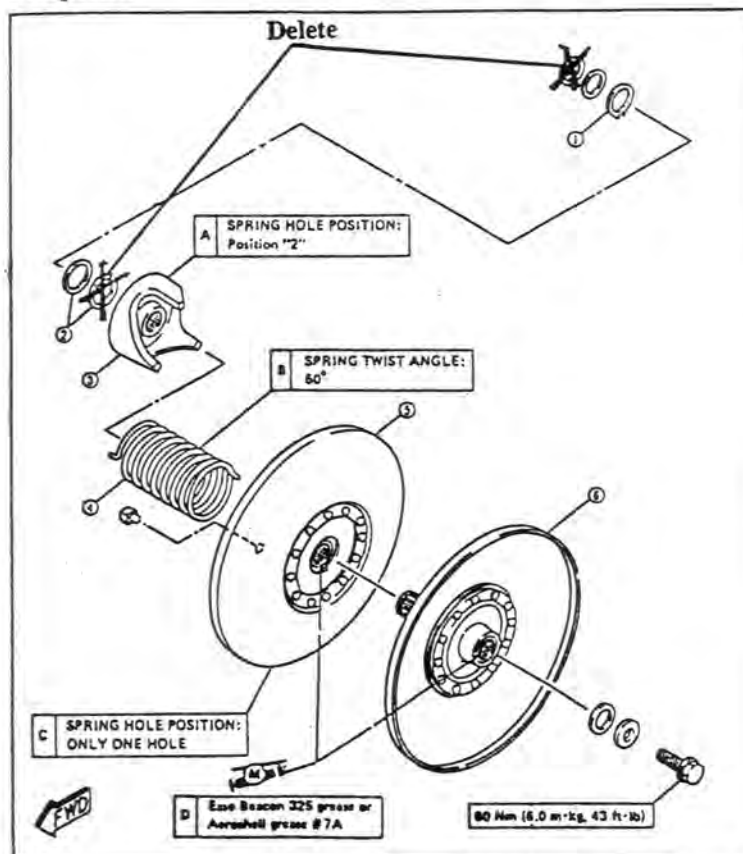
CORRECT



5. SECONDARY SHEAVE (EXPLODED DIAGRAM): PAGE 5-10

Delete: • Delete two shims as illustrated below.

Reason: Misprint.



Bulletin S88-024, Page 3 of 3

6. SKI AND FRONT SUSPENSION: PAGE 6-10

Delete: • HANDLING NOTES and NOTES ON DISPOSAL

Reason: This model uses the **Oil Shock Absorber**, not the Gas/Oil Shock Absorber.

EX570L**CARBURETOR EXCHANGE INSTRUCTIONS****October 21, 1987**

This bulletin describes the correct installation procedures for the carburetor kit for the EX570L, as referred to in bulletin S88-023.

AFFECTED UNITS

All EX570L models with carburetor related drivability problems which can not be corrected by normal service procedures. Please take note of the following before changing the carburetors.

- The kit carburetors will not make the units any faster or run any better unless the unit definitely has defective carburetors.
- The kit carburetors do not make the EX570L the same as the EX570M.
- This program is not a recall campaign, it is a program which will allow you to offer a solution to your customer's which have had carburetion problems with their '87 Exciter during the '86/87 season.

SERVICE PROCEDURES

NOTE: Refer to the assembly diagram on page 4 for an overview of the components to be installed.

WARNING: _____

Gasoline and its vapor are highly flammable and explosive. Keep fuel away from sparks, lit cigarettes, or flame. Work in a well ventilated area.

1. Remove the left side panel, clutch guard, drive belt and secondary clutch.
2. Disconnect the TORS clamps.
3. Loosen all carburetor joint clamps.
4. Remove the mounting bolts on the right side and upper left rear of the air box (under the access panel).
5. Disconnect the throttle and oil pump cables from the carburetors.
6. Remove the starter (choke) plungers from the carburetors.
7. Disconnect the fuel lines from the carburetors.
8. Remove the carburetors as a set.
9. Remove the old oil pump cable and attach the new one at the pump end.
10. Remove the old intake manifolds and install the new manifolds.

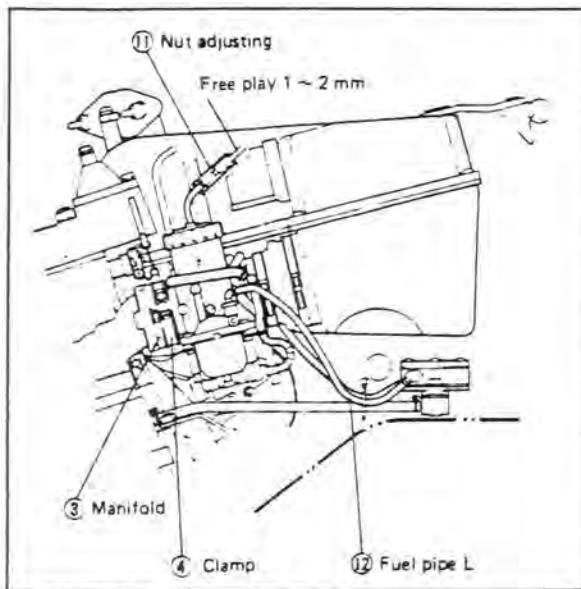


Illustration 1

11. Remove the left fuel line and install the new longer fuel line. Route the fuel line under the hold down clamps. See illustration 1.
12. Remove the clear dust covers from the venturi of the new carburetors.
13. Install the new choke cable (starter wire) on the new carburetors. The carbs are marked R and L on the side of the throttle body. The longer end of the choke cable goes to the left carburetor.
14. Install the right carburetor. Before tightening the joint clamps, verify that the joints are seated completely around the carburetor. Install the fuel line and clamp. See illustration 1.

NOTE:

Be sure to mount the carburetors correctly. Jetting is different for right and left carburetors.

15. Repeat step 14. for the left carburetor.

NOTE:

Each carburetor has two coolant fittings on the top for use on 1988 models. Disregard these fittings because they have no function on the '87 model.

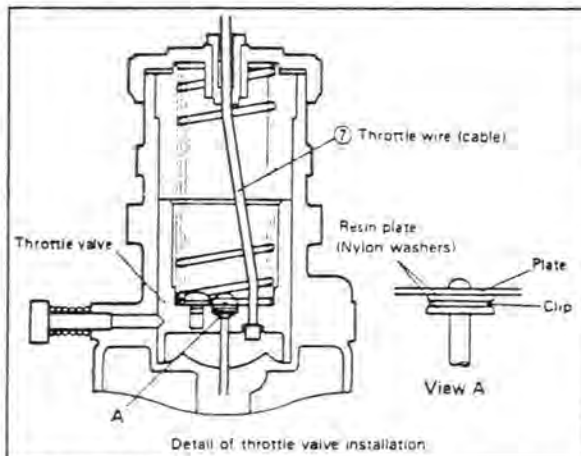


Illustration 2

16. Install and tighten the air box mounting bolts.
17. Remove the old choke cable (starter wire) from the instrument panel and install the new cable.

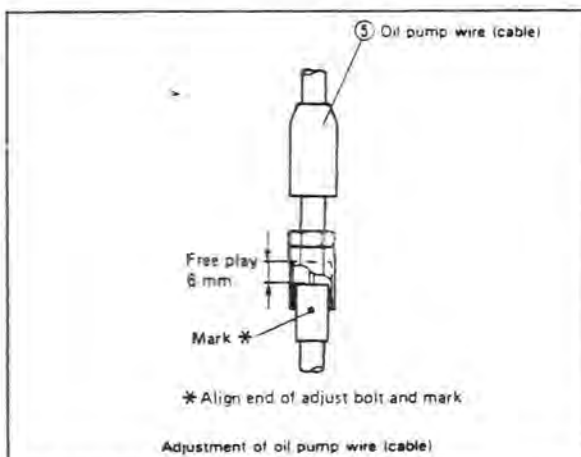


Illustration 3

18. Remove the handlebar cover and right hand grip.
19. Remove the old throttle lever assembly and install the new assembly.
20. Install the throttle cables to the carburetor slides. Install one nylon washer ("resin plate") above and below the needle clip. See illustration 2.
21. Connect the throttle and oil pump cable to the throttle assembly and install the hold down spring clamp.

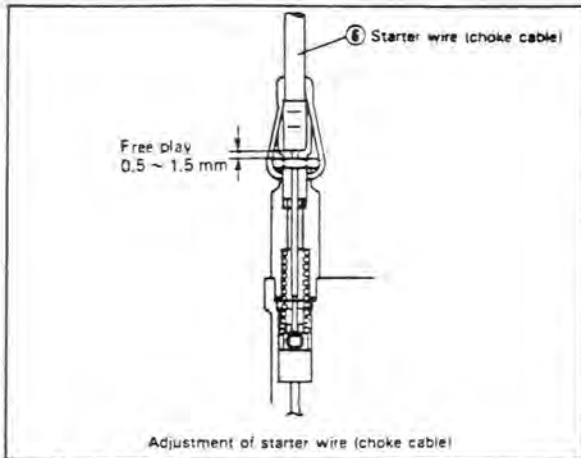


Illustration 4

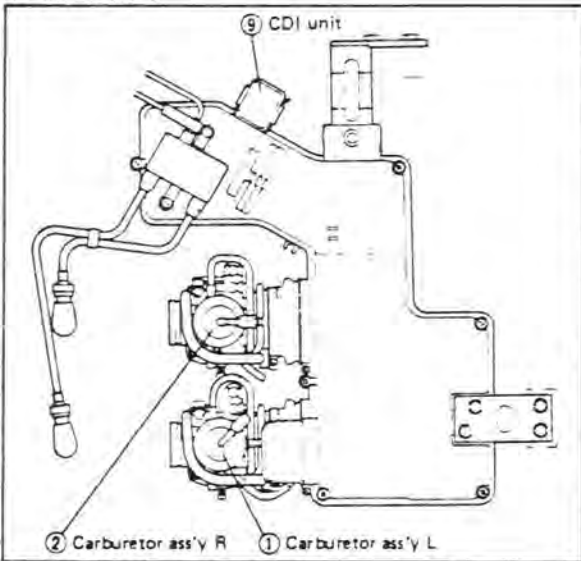


Illustration 5

22. Connect the TORS wire to the throttle lever assembly and assemble the handlebar cover. Re-glue the right-hand grip.
23. Connect the TORS wires at the carburetors, using the sub lead.
24. Adjust the oil pump cable freeplay. See illustration 3.
25. Adjust the choke cable freeplay. See illustration 4.
26. Adjust the throttle cable freeplay. See illustration 1.
27. Synchronize the carburetors and adjust the TORS switches.
28. Remove the old CDI unit and install the new unit. See illustration 5.
29. Before installing secondary clutch reset preload to 80° (A-3) using one clutch shim.
30. Install the secondary clutch, drive belt, clutch cover, and side panel.

SPECIFICATIONS

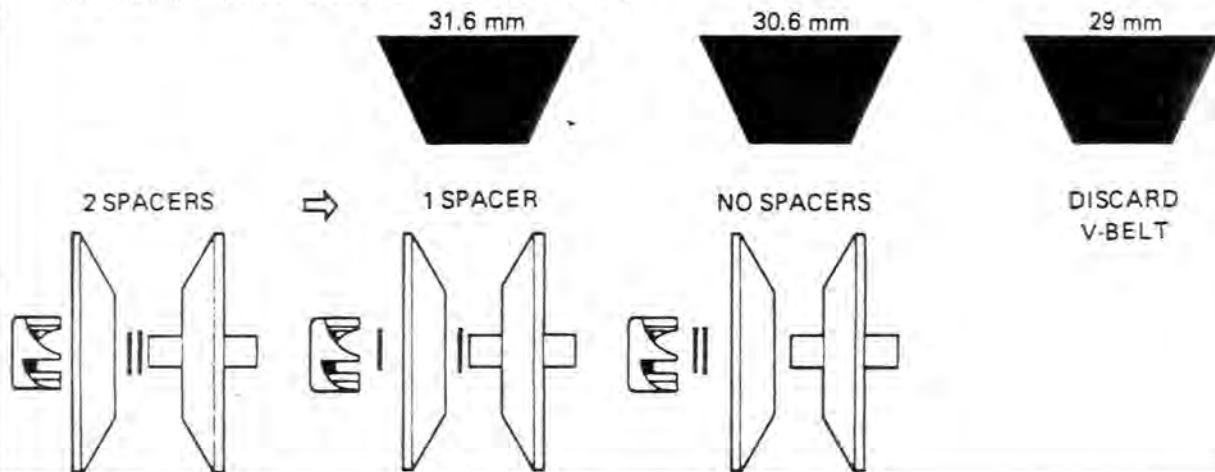
Idling speed: 1,500 rpm

Pilot screw turns out: 5/8

Secondary spring preload: 50° → 80° (A-3)

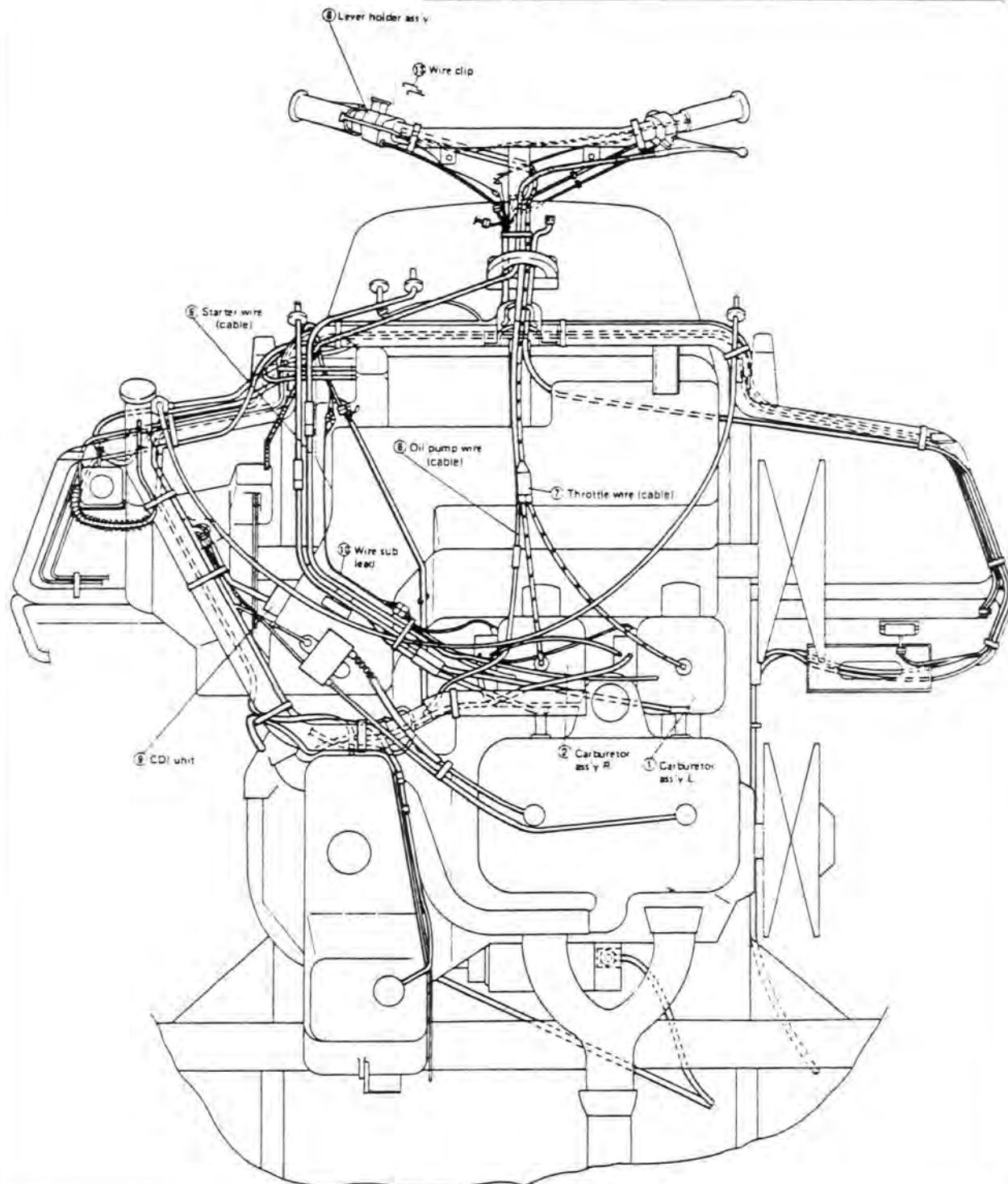
Secondary clutch shim: 2 pcs. → 1 pc.

NOTE: Please use clutch shim as illustration.



ASSEMBLY DIAGRAM

REF NO	DESCRIPTION	QTY/UNIT
①	CARBURETOR ASSY (L)	1
②	CARBURETOR ASSY (R)	1
③	MANIFOLD	2
④	CLAMP	2
⑤	OIL PUMP WIRE (cable)	1
⑥	STARTER WIRE (cable)	1
⑦	THROTTLE WIRE (cable)	1
⑧	LEVER HOLDER ASSY	1
⑨	CDI UNIT	1
⑩	WIRE SUB LEAD	1
⑪	NUT ADJUSTING	2
⑫	FUEL PIPE (L)	1
⑬	WIRE CLIP	1



PARTS INFORMATION

The kits will be available November 1st, 1987. **There are only a limited number of kits available.** Please order only the kits you require as they cannot be returned for credit. We are certain that the units requiring this modification represent no more than 20% of units sold. If you require more information regarding your requirements, please call your regional service representative for assistance.

PART NAME	PART NUMBER	DLR. COST
Carburetor kit	90891-50080-00	\$242.91

WARRANTY

TROUBLE CODE: S8825

PARTS: 90891-50080-00
(Dlr net + 10% for handling will be credited to your parts account.)

LABOUR: 0.5 hrs.

NOTE:

1. The expiration date for this program is March 31, 1988. **Any warranty requests submitted after this date will be rejected.**
2. Submit a warranty request only for those units which have actually been modified.
3. In order to receive credit, the old carburetors must be tagged and returned with the warranty request.
4. D.E.Y.S. system users please note that since a campaign number has been attached to the trouble code, the regular method of submitting warranty must be followed.
5. As indicated in bulletin S88-023, the actual time required to install the kit is 1,0 hours. Yamaha is asking our dealers to forego labour profits in order to keep the cost of this program down.

SV80M/SV80EM

YAMAHA DECAL ON FRONT EDGE OF SHROUD

November 11, 1987



Recent market reports indicate that the Yamaha decal on the front edge of the shroud on this model has poor adhesion, resulting in letters falling off. A new decal with improved adhesive is available.

AFFECTED UNITS

Any SV80M/EM which you find has lost part of the Yamaha decal and is still within the units normal warranty period.

PARTS INFORMATION

PART NAME	PART NUMBER	DLR. COST
Emblem, Yamaha	99241-00030	\$1.78

WARRANTY

To obtain warranty coverage for this decal, please indicate the following on your warranty request.

TROUBLE CODE: 08

PARTS: 99241-00030-00
(Dlr. Net + 10% for handling will be credited to your parts account.)

LABOUR: 0.2 hours

NOTE: _____

1. You may indicate up to 10 serial numbers on one request.
 2. Submit a request only for the units you have actually performed this replacement.
- _____

All Snowmobile Dealers

Part Number Reference on '88 Literature

November 18, 1987



This bulletin has been prepared by the Publications Department as a part number reference bulletin on '88 literature for snowmobiles. This bulletin will serve as an update of the present service literature guide microfiche until a new microfiche has been completed.

If you have any further questions concerning service literature, please contact Publications in Toronto.

SNOWMOBILES

MODEL	SERVICE	ASSEMBLY	OWNER'S
<u>EXCITER</u> 1988 EX570M	EN - 84M-28197-20 FR - 84M-28197-W0	<i>No manual issued, see EX570L</i> 82M-28107-70	84M-28199-70
1988 EX570EM	EN - 84M-28197-20 FR - 84M-28197-W0	<i>No manual issued, see EX570L</i> 82M-28107-70	84M-28199-70

MODEL	OWNER'S/SERVICE	ASSEMBLY
<u>V-MAX</u> 1988 VMX540M	83X-28199-70	<i>No manual issued, see VMX540K</i> 81K-28107-70

MODEL	SERVICE	ASSEMBLY	OWNER'S
<u>SRV</u> 1988 SR540M	<i>No manual issued, see SR540H</i> 8V9-28197-70 S/S/M 8L9-28197-70 S/M	<i>No manual issued, see SR540J</i> 8Y0-28107-70	84L-28199-70
<u>XL-V</u> 1988 XL540M	<i>No manual issued, see XL540J</i> 8Y7-28197-70 S/S/M 8H8-28197-70 S/M	<i>No manual issued, see XL540J</i> 8Y7-28107-70	83W-28199-70
<u>PHAZER</u> 1988 PZ480M	<i>No manual issued, see PZ480H</i> 8V0-28197-70	<i>No manual issued, see PZ480J</i> 80K-28107-70	83V-28199-70

SNOWMOBILES

MODEL	SERVICE	ASSEMBLY	OWNER'S
<u>PHAZER E</u> 1988 PHAZER E	<i>No manual issued, see PZ480EJ</i> 80K-28197-70 S/S/M 8V0-28197-70 S/M	<i>No manual issued, see PZ480EJ</i> 80K-28107-70	83V-28199-70
<u>ENTICER</u> 1988 ET340M	<i>No manual issued, see ET340G</i> 8T6-28197-70	<i>No manual issued, see ET340K</i> 80X-28107-70	83T-28199-70
<u>EXCEL</u> 1988 EC340M	<i>No manual issued, see ET340G</i> 8T6-28197-70	<i>No manual issued, see EC340K</i> 80Y-28107-70	84H-28199-70
<u>TRAPPER</u> 1988 ET340TM	<i>No manual issued, see ET340TG</i> 8T6-28197-70	<i>No manual issued, see ET340TK</i> 80X-28107-70	83T-28199-70
<u>TRAPPER REVERSE</u> 1988 ET340TRM	<i>No manual issued, see ET340TRK</i> 81W-28197-70	<i>No manual issued, see ET340TRK</i> 80X-28107-70	83T-28199-70
<u>INVITER</u> 1988 CF300M	<i>No manual issued, see CF300K</i> 81E-28197-70	<i>No manual issued, see CF300K</i> 81E-28107-70	83U-28199-70
<u>BRAVO</u> 1988 BR250M	<i>No manual issued, see BR250F</i> 8R4-28197-70	<i>No manual issued, see BR250J</i> 80V-28107-70	83Y-28199-70

SNOWMOBILES

MODEL	SERVICE	ASSEMBLY	OWNER'S
<u>BRAVO TRAPPER</u> 1988 BR250TM	<i>No manual issued, see BR250TSH</i> 8X8-28197-70 S/S/M 8R4-28197-70 S/M	<i>No manual issued, see BR250TK</i> 80V-28107-70	83Y-28199-70
<u>BRAVO TRANSPORTER</u> 1988 BR250TSM	<i>No manual issued, see BR250TJ</i> 8Y1-28197-70 S/S/M 8R4-28197-70 S/M	<i>No manual issued, see BR250TSK</i> 80V-28107-70	83Y-28199-70
<u>VIKING</u> 1988 VK540M	EN - 84R-28197-20 FR - 84R-28197-W0	84R-28107-70	84R-28199-70
<u>SNOSCOOT</u> 1988 SV80M	EN - 85G-28197-20 FR - 85G-28197-W0	85G-28107-70	85G-28199-70
<u>SNOSCOOT E -</u> 1988 SV80EM	EN - 85G-28197-20 FR - 85G-28197-W0	85G-28107-70	85G-28199-70

SERVICE BULLETIN

To All Snowmobile Dealers

January 4, 1988

S88-028



It has been brought to our attention that the Snowmobiler's Safety Guide, which is usually included with each new Yamaha snowmobile, has inadvertently been omitted from some crates of the 1988 models.

Any dealer who has purchased one or more of these units without the guide will have a computer report attached to this bulletin showing their model/serial numbers and also any available retail information supplied to Yamaha.

Further to this, a quantity of the Snowmobiler's Safety Guides corresponding to the number of units on each list is being sent out under separate cover to ensure an adequate supply of the guides are available for your distribution.

In the interest of safety and customer satisfaction, please ensure that all purchasers of the affected units receive their copy of this very important publication.

We apologize for any inconvenience caused by the omission of these manuals and we thank you for your anticipated cooperation.

BULLETIN TECHNIQUE/TECHNICAL BULLETIN

YAMAHA

MOTOR CANADA LTD.
MOTEUR DU CANADA LTÉE

EX570M/EM

OIL TANK HEAT SHIELD BOLTS LOOSENING

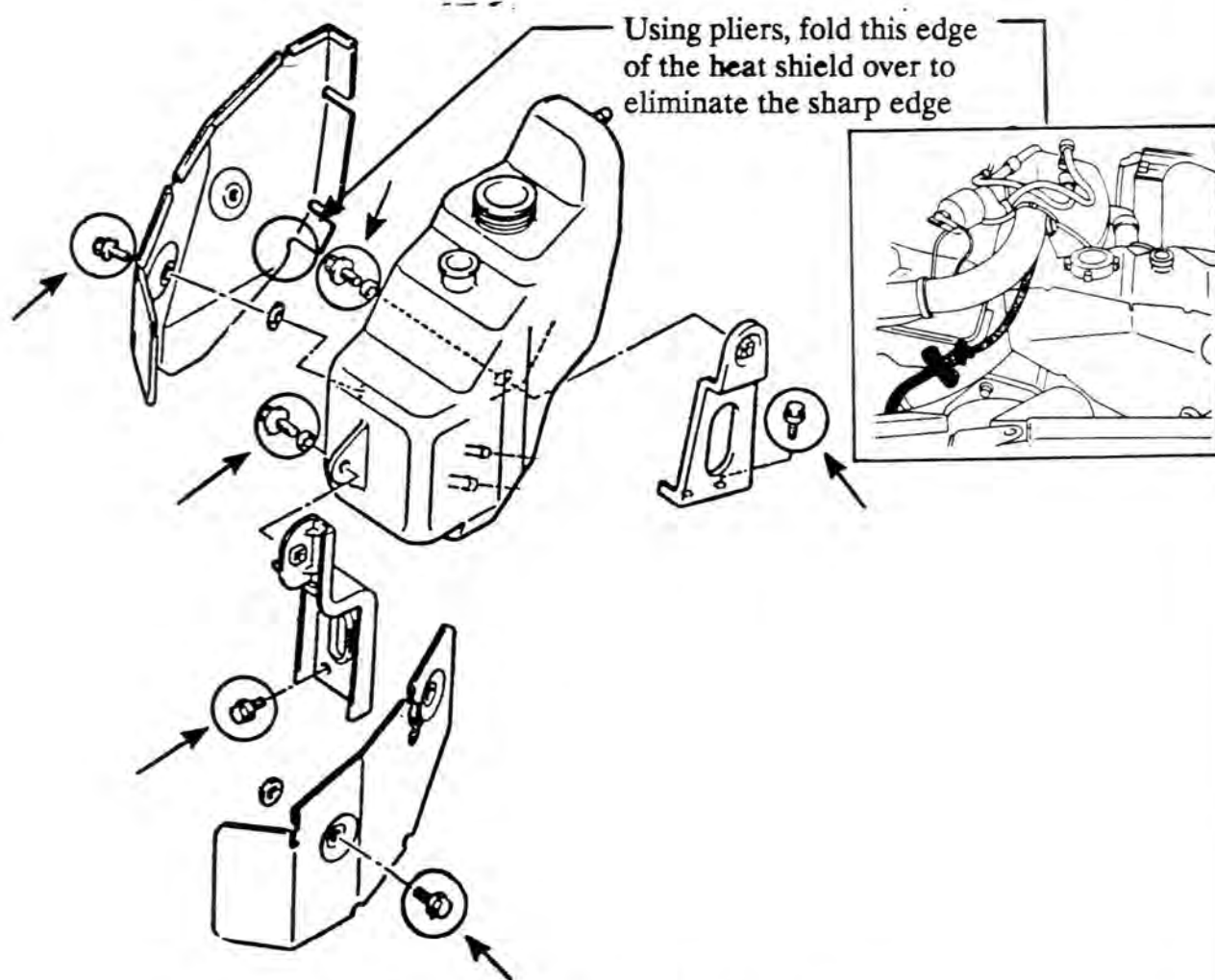
January 27, 1988

S88-029

Field reports indicate that the heat shield bolts on the above models have been loosening due to vibration. In order to prevent this, we have decided to NEJI LOCK the oil tank bolts.

SERVICE PROCEDURES:

- Remove the four heat shield bolts and remove the heat shield. Bend the lower edge of the R.H. oil tank shield, as indicated in the illustration, to increase the clearance between the shield and lower coolant hose. This will prevent the hose from being cut.
- Remove the oil tank stay bolts, one at a time, apply NEJI LOCK (part number 90890-70043 or equivalent) to the threads and reinstall torque to spec. (6 Nm/0.6 m.kg/4.3 ft.lb)
- Apply NEJI LOCK (part number 90890-70043 or equivalent) to the threads of the heat shield bolts and reinstall.
- Check that the routing of the carburetor heat hose will not allow it to contact the notch in the oil tank heat shield.
- NOTE: There is a fibre washer installed between the oil tank and the heat shield.
- TORQUE TO SPEC. (6 Nm/0.6 m.kg/4.3 ft.lb)



PARTS INFORMATION:

There should be no parts required for this procedure. However, if you find that a bolt has loosened and cannot be found, you may claim a replacement.

WARRANTY INFORMATION:

TROUBLE CODE: S8-29

PARTS; Claim for bolts which may have loosened and are lost.

LABOUR: 0.2 hours

EX570M/EM and EX570L with S88-025 Carburetor Modification
Additional Information on Initial Set-up and Carburetor Jetting
February 3, 1988



S88-031

Some EX570M/EM, and some EX570L units with the 1988 style carburetor kits have experienced piston seizure. Inspection of these units has shown various causes for different machines. We have found that standard specifications have a narrow safety margin: if one or more specifications (such as jetting, oil pump output, piston clearance) is at minimum or out of spec., or the cooling system is not properly bled, the chance for seizure is greater, particularly if the machine is ridden hard. To avoid this, each machine must be set-up in a way which ensures a safety margin. Use the recommendations in this bulletin which includes changing to richer jetting for 0~600 m (0~2000 ft.) altitude.

ADDITIONAL SERVICE INFORMATION:

1. Use a 40:1 fuel oil mixture for the first tank of fuel (premium unleaded fuel).
2. Remove the spark plugs and squirt two shots of Yamalube 2 into each plug hole before initially starting the engine.
3. Check all fuel lines for kinks where the line takes a sharp bend, especially near the petcock and at the carburetor fittings. Correct any kinks by rerouting and or relieving them so the kinking will not reoccur.
4. For EX570M/EM models, set the fuel petcock cable so it has 1 mm freeplay. Lack of freeplay can cause the plunger to partially restrict the fuel flow.
5. For EX570M/EM models, set the oil pump cable adjuster 2 mm richer (two turns out from the standard adjustment). No additional adjustment is needed for converted EX570L models.
6. Bleed the cooling system as per bulletin S87-016.

NOTE: The instructions indicate the rear bleed fitting and the bleed bolt on the thermostat housing should allow coolant to run out until the air bubbles disappear from the coolant. The time for this and the amount of coolant loss, of course, will vary from machine to machine, however, be sure there is no air left in the cooling system.

7. On units which have experienced piston seizure, be sure the piston to cylinder clearance is at least 0.075 mm (0.003") after repair.

CARBURETOR JETTING:

Main Jet: Sea level spec., use #340 instead of #320.
High Altitude - no change necessary.

Jet Needle Clip Position: Change from #3 to #4.

Power Air Jet: L.H. change from 1.7 to 1.3.
R.H. change from 1.3 to 1.1.

NOTE: Use the 1.3 power air jet from the R.H. carburetor in the L.H. carburetor.

PARTS INFORMATION:

- #340 main jets (part number 137-14143-68-00) are included in the crate with EX570M/EM models.
- 1.1 power air jet part number 239-14172-11-00

WARRANTY INFORMATION:

EX570M/EM		EX570L with Carb. Kit	
TROUBLE CODE:	S831	TROUBLE CODE:	S83A
PARTS:	1.1 Power Air Jet	PARTS:	Main Jet #340 x 2 1.1 Power Air Jet
LABOUR:	0.8 hours	LABOUR:	0.8 hours

NOTE: Use these recommended changes when performing the initial set-up or when setting up a unit which you have repaired after a seizure.

When you have disassembled carburetors for jetting changes, verify that the float height and carburetor synchronization is correct.

For your customers who want to play it safe, perform the changes indicated in this bulletin.

All Snowmobile Dealers

EX570L/M RELIABILITY UPDATE

May 18, 1988



S88-033

For the 1988 EX570, the carburetors were changed from float/butterfly to VM style. Additionally, we made available a VM carburetor kit for any EX570L (1987) model that experienced carburetion problems during the previous season.

However, some units with VM style carburetion experienced piston seizure this past season because the carburetor calibration was not correct. Technical bulletin S88-031 listed additional information on set-up and richer jetting to counter measure the problem. This richer jetting eliminated piston seizures but also reduced engine performance and caused customer dissatisfaction.

Yamaha has made extensive changes to the EX570 carburetion system for the 1989 Exciter. These include new jetting, repositioning the inlet for the air box, heat shielding on the muffler and more ventilation for the engine room area.

These changes are under final evaluation, and have recently been tested in the Canadian Rockies, where problems related to high altitude jetting specs and riding conditions were prominent. We are now confident that the problems are eliminated and normal performance has been restored.

A technical bulletin will be issued as soon as the part numbers, etc. have been set-up by the factory. This bulletin will apply to all 1988 and VM equipped 1987 EX570 models, in or out of warranty. It will deal with the changes to be made at no cost to your EX570 customers.

Additionally, for any future cases of piston seizure on EX570 models with VM carburetors, in or out of warranty, please consult your Regional Service Representatives. They will assist you in the proper repair and warranty authorization procedure.

Yamaha is taking these measures to maintain its reputation for manufacturing high quality products and keeping customers satisfied. Yamaha apologizes for the inconvenience this situation may have caused you and your customers. We would also like to take this opportunity to thank you for the extra effort extended by yourselves during the past season in dealing with the problems experienced by Exciter owners.

Sincerely,

YAMAHA MOTOR CANADA SERVICE DIVISION

ALL SNOWMOBILE DEALERS

EX570 FACTORY MODIFICATION

June 22, 1988



S88-034

In order to assure your EX570 customers of our support, and our concern that their snowmobiles perform reliably and well, we are sending them a letter asking them to return their unit to you to have a factory modification carried out.

This letter is intended for all 1988 model owners and those 1987 owners who had their units equipped with VM carburetors due to poor performance. (Re: bulletin S88-025, issued October 21, 1987).

The kit referred to in the letter will consist of new needles and jets for both carburetors, and a new air box. An additional muffler heat shield will be added for high altitude applications only. In effect, with the changes mentioned these units will have been brought up to 1989 model carburetor specifications.

There is no need to make changes to the 1987 models which are equipped with the original float butterfly-type carburetors.

An optional fresh air kit will also be made available for high altitude and deep snow conditions. This kit is not supplied free of charge but will be moderately priced and intended for those owners whose riding demands are extreme.

Full details regarding installation instructions, warranty application and parts ordering information will be sent to you as soon as possible.

A copy of the owner letter is enclosed for your information. If you have any questions, please contact your Regional Service personnel.

VK540EN

Wrong Parts in the Crate

June 28, 1988



S88-035

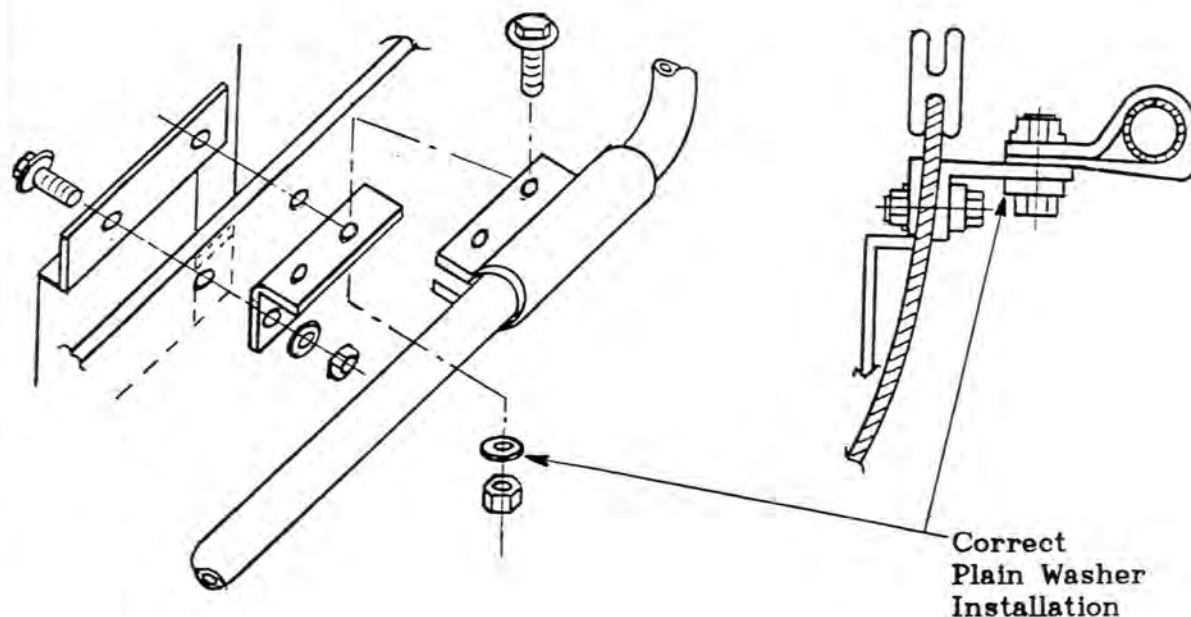
The factory has advised us that the wrong type of washer was put in the crate by mistake. A spring washer instead of the correct flat washer was packed.

Affected Units

VK540EN - 86R-000101 - 86R-000200

Procedure

When assembling the unit use the correct (plain) washer as shown in the illustration.



Parts Information

Attached to the outside of the crate on the units affected you will find a packing slip pouch containing the correct washers and a copy of this bulletin.

Note: The washer installation is part of normal assembly. Therefore there is no warranty allowance.

This Bulletin is issued for your information only.

SV80/SV80E

ASSEMBLY MANUAL CORRECTION

July 27, 1988

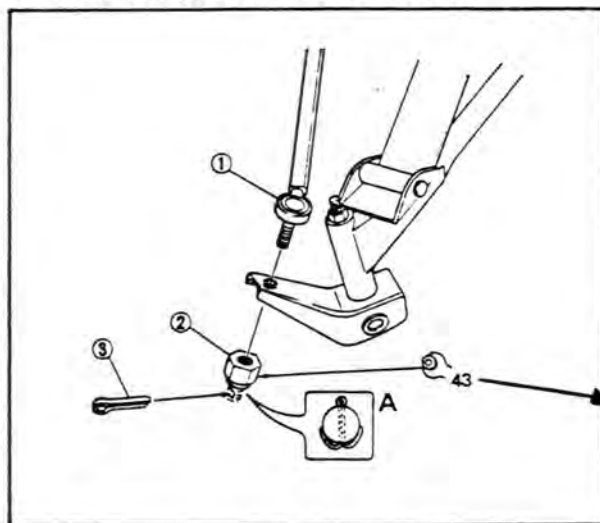


S88-036

It has come to our attention that the torque specification given for the steering relay rod bolt was printed incorrectly in the Assembly Manual (part number 85G-28107-70-00). Please revise the information in your manual as per the information below.

SV80/SV80E ASSEMBLY MANUAL (Page -2-)

2. Steering relay rod/Tige relais de direction



1	Steering relay rod (Right and left)	2	*	
2	U nut	2	V(#2)	d = 10 (0.39)
3	Cotter pin	2	V(#2)	

A: Bend the end of cotter pin.

A: Replier l'extrémité de la
goupille fendue.

37 (3.7 kg-m) [26.6 ft.-lb.]

Make sure the Steering Relay Rod Bolt Threads
have been cleaned of grease or oil.

EX570M/EM and EX570L with S88-025 Carburetor Change

CARBURETOR/AIR BOX CHANGE INSTRUCTIONS

September 21, 1988



This bulletin describes the correct installation procedures for the changes to the carburetors and new air box described in Bulletin S88-033.

AFFECTED UNITS

All EX570M, EX570EM and all EX570L models which have had the carburetor change as per Bulletin S88-025.

SERVICE PROCEDURE

WARNING: Gasoline and its vapour are highly flammable and explosive. Keep fuel away from sparks, lit cigarettes, or flame. Work in a well ventilated area.

1. Remove the left side panel, clutch guard, drive belt and secondary sheave.
2. Disconnect the TORS switches.
3. Loosen all carburetor joint clamps.
4. Remove the mounting bolts on the right side and upper left rear of the air box (under the access panel).
5. Remove the throttle valve assemblies from both carburetors.
6. Remove the starter (choke) plungers from both carburetors.
7. Remove the coolant lines from the carburetors.
8. Remove the fuel lines from both carburetors.
9. Remove both carburetors.
10. Remove the slides from the throttle cables. Disconnect the ignition coil primary leads, remove the CDI box and remove the air box.
11. Remove the ignition coil and carburetor boots from the air box.

NOTE: The screws may have Loctite and be very difficult to remove. If they must be replaced, the part number is 92501-06025.

12. Remove the screws fastening the two halves of the air box.
13. Assemble the air box kit (90891-50097) using the screws and baffle from the original air box.

BULLETIN S88-037, Page 2 of 4

14. Install the ignition coil and carburetor boots on the new air box.
15. Install the new air box leaving the mounting bolts loose until carburetors are installed.
16. Install the CDI box on the air box.
17. Install the carburetor jet kit.

	ORIGINAL SPEC.		S88-031		NEW SPEC.	
	Left	Right	Left	Right	Left	Right
Power Jet	160	200	160	200	200	200
Power Air Jet	1.7	1.3	1.3	1.1	1.5	1.5
Needle Jet	Q-6	Q-6	Q-6	Q-6	P-6	P-6
Jet Needle (clip pos.)	6DH7(3)	6DH7(3)	6DH7(4)	6DH7(4)	6FL68(3)	6FL68(3)
Main Jet	320	320	340	340	320	320

NOTE: You may find using a toothpick helps remove the power air jets.

18. Assemble the slides on the throttle cable cap assemblies.
19. Verify float heights (18.1 mm + 1 mm) in both carburetors.
20. Install both carburetor bodies and tighten all carburetor joint clamps.
21. Install both throttle valve assemblies.
22. Install both starter (choke) plungers.
23. Install fuel and coolant hoses.
24. Tighten the air box securing bolts.
25. Install the secondary clutch, drive belt, clutch cover and side panel.
26. Adjust engine idle speed, throttle cable freeplay, carburetor synchronization, starter cable freeplay and oil pump cable freeplay as per the Service Manual.

NOTE: We have found that carburetor adjustment is easier if you use the following method:

1. Adjust both starter cables freeplay.
2. With the TORS carburetor switches bypassed, run the engine.
 - Adjust engine idle speed (1500 RPM).
 - Synchronize the carburetors using the carburetor synchronization tool (YS-33275) at idle and with the throttle opened to approximately 3,000 RPM.

- Adjust throttle cable freeplay.
- Adjust oil pump cable freeplay.
- 3. Shut off the engine, remove the carburetors and using your pocket tester, set the TORS carburetor switches.
- 4. Reinstall the carburetors with the TORS switches connected and recheck idle speed and carburetor synchronization.

PARTS INFORMATION

PART NUMBER	DESCRIPTION	DEALER COST
90891-50096	EX570 Jet Kit includes: PWJ (#200) 1 pc PWAJ(1.5) 2 pcs NJ (P-6) 2 pcs JN (6FL68) 2 pcs MJ (#320) 2 pcs	\$15.04
90891-50097	EX570 Air Box Kit	\$ 7.76

WARRANTY

The owner of each registered affected unit should have received a pre-printed Factory Modification Notice and has been instructed to bring the notice with the unit when the modification is to be done. To receive credit for the parts and labor involved in this modification, you must detach the form, fill in the appropriate information, being sure that it is signed by both the customer and the dealer and attach the form to a Warranty Request Form, using the following information:

TROUBLE CODE: S8-37

PARTS: 90891-50096 (1 pc.)
90891-50097 (1 pc.)

Dealer net + 10% will be credited.

LABOUR: 1.2 hours

NOTE: - You may submit up to ten serial numbers on one Warranty Request Form.

- If the customer has not brought the notice, submit a Warranty Request Form.

ADDITIONAL SET-UP INFORMATION

The EX570 has ventilation points for the under-hood area which come with covers. The nose hole has a quick flip-up baffle which can be opened or closed easily when out on the trail. The vents on either side of the hood, as well as the louvered panel under the headlight, have baffles which are secured by threaded screws. These baffles are placed in these areas to prevent too much snow entering the under-hood area when riding in deep powder snow conditions. The performance of this snowmobile will generally be best with the baffles removed and we recommend that this be done for most riding conditions.

Riding in deep powder snow conditions, will require that these baffles be closed/reinstalled.

For high altitude deep powder snow conditions encountered in mountainous areas, there are additional modifications which may be required. For information regarding these modifications, please consult your Regional Service Representative.