

1989

SNOWMOBILE INDEX - 1989

This is the start of another Yamaha snowmobile season and, once again, we will be periodically sending out technical bulletins on a wide variety of topics.

The following tables have been designed to allow you to keep a running list of the current-year bulletins as each is received. You will then be able to identify, at a glance, any bulletin you wish to consult.

If your snowmobile bulletin binder is now full, another one may be ordered under Part Number YCS-00120-01-00.

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BR250N

1989 SERVICE DATA

September, 1988



S89-002

MODEL-	BR250N (86A)
Engine Number/Starting Frame Number	86A/86A-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
Idle RPM	APPROX. 1100
Pilot(Slow) Air Jet/Pw. A. 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/-----
Ignition System/Manufacturer	C. D. I. /YAMAHA
Ignition Timing(mm)	1.6 BTDC
Pulser Coil Resistance(Ω)	White/Red~Black:20±10%
Charge Coil Resistance(Ω)	Brown~Black:426±10%
Lighting Coil Resistance(Ω)	Yellow~Black:0.23±10%
Primary Ignition Coil Resistance(Ω)	1.0±15%
Secondary Ignition Coil Resistance(kΩ)	5.9±15%

BR250TSN

1989 SERVICE DATA

September, 1988



S89-003

MODEL-	BR250TSN (86B)
Engine Number/Starting Frame Number	86B/86B-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/Pw. A. 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(mm)	1.6 BTDC
Pulser Coil Resistance(Ω)	White/Red~Black:20±10%
Charge Coil Resistance(Ω)	Brown~Black:426±10%
Lighting Coil Resistance(Ω)	Yellow~Black:0.23±10%
Primary Ignition Coil Resistance(Ω)	1.0±15%
Secondary Ignition Coil Resistance(kΩ)	5.9±15%

BR250TN

1989 SERVICE DATA

September, 1988



S89-004

MODEL-	BR250TN (86C)
Engine Number/Starting Frame Number	86C/86C-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 (mm)	1.6 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black: 20±10%
Charge Coil Resistance (Ω)	Brown~Black: 426±10%
Lighting Coil Resistance (Ω)	Yellow~Black: 0.23±10%
Primary Ignition Coil Resistance (Ω)	1.0±15%
Secondary Ignition Coil Resistance (kΩ)	5.9±15%

CF300N

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-005A

MODEL	CF300N (86E)
Engine Number/Starting Frame Number	86E/86E-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
Idle RPM	APPROX. 1100
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 1.0/-----/-----
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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 20 ± 10%
Charge Coil Resistance (Ω)	Brown ~ Black: 275 ± 10%, Red ~ Black: 0.78 ± 10%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.32 ± 10%
Primary Ignition Coil Resistance (Ω)	1.0 ± 15%
Secondary Ignition Coil Resistance (kΩ)	5.9 ± 15%
Battery Type/Spec. Gravity/Charge Rate (A)	YUASA: YB16AL - A2/1.28/1.6

CS340N

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-006A

MODEL	CS340N (85L)
Engine Number/Starting Frame Number	85L/85L-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	TEIKEI/Y30W - 2/85L00
* Main Jet	LH: #126, RH: #130
Alternate Main Jets	#134, #130, #126, #124, #122, #120, #118, #116, #114
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1 - 3/4
* Power Jet/Pilot (Slow) jet	-----/#70
Float Height (mm)	31 ± 1
Idle RPM	APPROX. 1800
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 1.1/-----/ ± 1.9
AUTOLUBE PUMP	
Colour/Adjustment (mm)	GREEN/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. 3500
Shift RPM	APPROX. 6600
Sheave Center to Center (mm)	APPROX. 268.5
Sheave Offset (mm)	APPROX. 11
Primary Spring Colour/Length (mm)	GOLD/73.4
Primary Spring Rate (kg/mm) /Preload (kg)	2.1/25
Secondary Spring Colour/Length (mm)	RED/83
Secondary Spring Rate (kg/mm/rad) /Preload (°)	477/120
Secondary Drive Gear Ratio	12/22
Chain Free Play (mm)/Track Tension (mm-kg)	8 ~ 15/25 ~ 30-10
Ski Centre to Centre (mm)	870
Ski Toe-in or Toe-out (mm)	0 ~ 15 (Toe out)
CAPACITIES	
Fuel Tank Capacity (L)/Fuel Type	30.6/Unleaded Regular Gasoline
Oil Tank Capacity (L)/Oil Type	2.2/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	60-60/8 - 23/-----
Ignition System/Manufacturer	C.D.I. /YAMAHA
* Ignition Timing (mm)	1.6 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 20 ± 10%
Charge Coil Resistance (Ω)	Brown ~ Black: 275 ± 10%, Red ~ Black: 0.78 ± 10%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.32 ± 10%
Primary Ignition Coil Resistance (Ω)	0.12 ± 8%/ 0.15 ± 20%
Secondary Ignition Coil Resistance (kΩ)	4.0 ± 20%/ 3.5 ± 20%
Battery Type/Spec. Gravity/Charge Rate (A)	-----

CS340EN

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-007A

MODEL	CS340EN (85N)
Engine Number/Starting Frame Number	85N/85N-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	TEIKEI/Y30W - 2/85L00
* Main Jet	LH:#126, RH: #130
Alternate Main Jets	#134, #130, #126, #124, #122, #120, #118, #116, #114
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1 - 3/4
* Power Jet/Pilot (Slow) jet	-----/#70
Float Height (mm)	31 ± 1
Idle RPM	APPROX. 1800
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 1.1/-----/ φ 1.9
AUTOLUBE PUMP	
Colour/Adjustment (mm)	GREEN/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. 3500
Shift RPM	APPROX. 6600
Sheave Center to Center (mm)	APPROX. 268.5
Sheave Offset (mm)	APPROX. 11
Primary Spring Colour/Length (mm)	GOLD-BROWN/73.4
Primary Spring Rate (kg/mm) /Preload (kg)	2.1/25
Secondary Spring Colour/Length (mm)	RED/83
Secondary Spring Rate (kg/mm/rad) /Preload (°)	477/120
Secondary Drive Gear Ratio	12/22
Chain Free Play (mm)/Track Tension (mm-kg)	8 ~ 15/25 ~ 30-10
Ski Centre to Centre (mm)	870
Ski Toe-in or Toe-out (mm)	0 ~ 15 (Toe out)
CAPACITIES	
Fuel Tank Capacity (L)/Fuel Type	30.6/Unleaded Regular Gasoline
Oil Tank Capacity (L)/Oil Type	2.2/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	60-60/8 - 23/3.4
Ignition System/Manufacturer	C.D.I. /YAMAHA
* Ignition Timing (mm)	1.6 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 20 ± 10%
Charge Coil Resistance (Ω)	Brown ~ Black: 275 ± 10%, Red ~ Black: 0.78 ± 10%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.32 ± 10%
Primary Ignition Coil Resistance (Ω)	0.12 ± 8%/ 0.15 ± 20%%
Secondary Ignition Coil Resistance (kΩ)	4.0 ± 20%/3.5 ± 20%
Battery Type/Spec. Gravity/Charge Rate (A)	YUASA: YB14L - A2/1.28/1.4

ET400TN

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-008A

MODEL	ET400TN (85T)
Engine Number/Starting Frame Number	85T/85T-000101
ENGINE	Fan-cooled, Piston-port, Twin
Displacement (cc)/Bore X Stroke(mm)	408/66 X 59.6
Piston Clearance (mm)	0.050 ~ 0.055
Piston Ring End Gap (Top/2nd) (mm)	0.35 ~ 0.55/0.35 ~ 0.55
CARBURETOR	
Manufacturer/Type/I.D. Number	MIKUNI/B38 - 32/85T00
Main Jet	#140
Alternate Main Jets	#130, #131.3, #132.5, #135, #142.5
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1 - 1/2
Power Jet/Pilot (Slow) jet	-----/#80
Float Height (mm)	12.7 ± 1
Idle RPM	APPROX. 1700
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 0.7/-----/-----
AUTOLUBE PUMP	
Colour/Adjustment (mm)	ORANGE/22 ± 1 - Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.10 ~ 0.15/1.55 ~ 1.77
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)	BLUE-GREEN/85.1
Primary Spring Rate (kg/mm) /Preload (kg)	1.06/25
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 ~ 15/40 ~ 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 BR8ES/0.7 ~ 0.8
Headlight/Taillight/Meterlight Wattage	60-60/8 - 23/3.4
Ignition System/Manufacturer	C.D.I. /YAMAHA
* Ignition Timing (mm)	1.6 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 20 ± 10%
Charge Coil Resistance (Ω)	Brown ~ Black: 275 ± 10%, Red ~ Black: 0.78 ± 10%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.32 ± 10%
Primary Ignition Coil Resistance (Ω)	0.12 ± 8%/ 0.15 ± 20%%
Secondary Ignition Coil Resistance (kΩ)	4.0 ± 20%/3.5 ± 20%

ET400TRN

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-009A

MODEL	ET400TRN (85V)
Engine Number/Starting Frame Number	86V/86V-000101
ENGINE	Fan-cooled, Piston-port, Twin
Displacement (cc)/Bore X Stroke(mm)	408/66 X 59.6
Piston Clearance (mm)	0.050 ~ 0.055
Piston Ring End Gap (Top/2nd) (mm)	0.35 ~ 0.55/0.35 ~ 0.55
CARBURETOR	
Manufacturer/Type/I.D. Number	MIKUNI/B38 - 32/85T00
Main Jet	#140
Alternate Main Jets	#130, #131.3, #132.5, #135, #142.5
Jet Needle (Clip Position)	-----
Idle Mixture Screw Turns Out	1 - 1/2
Power Jet/Pilot (Slow) jet	-----/#80
Float Height (mm)	12.7 ± 1
Idle RPM	APPROX. 1700
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ .70/-----/-----
AUTOLUBE PUMP	
Colour/Adjustment (mm)	ORANGE/22 ± 1 - Cable Freeplay at idle
Pump Plunger Stroke (Min/Max) (mm)	0.10 ~ 0.15/1.55 ~ 1.77
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)	WHITE-VIOLET/77.2
Primary Spring Rate (kg/mm) /Preload (kg)	1.59/25
Secondary Spring Colour/Length (mm)	GOLD/127
Secondary Spring Rate (kg/mm/rad) /Preload (°)	187/192
Secondary Drive Gear Ratio	14/31
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 BR8ES/0.7 ~ 0.8
Headlight/Taillight/Meterlight Wattage	60-60/8 - 23/3.4
Ignition System/Manufacturer	C.D.I. /YAMAHA
* Ignition Timing (mm)	1.6 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 20 ± 10%
Charge Coil Resistance (Ω)	Brown ~ Black: 275 ± 10%, Red ~ Black: 0.78 ± 10%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.32 ± 10%
Primary Ignition Coil Resistance (Ω)	0.12 ± 8%/0.15 ± 20%
Secondary Ignition Coil Resistance (kΩ)	4.0 ± 20%/3.5 ± 20%

PZ480N

1989 SERVICE DATA

September, 1988



WARRANTY-	PZ480N (86F)
Engine Number/Starting Frame Number	86F/86F-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/LH:8V002, RH:80L01
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)	9.7±1
Idle RPM	APPROX. 1600
Pilot(Slow)Air Jet/Pw.A. Jet/Main Air Jet (mm)	φ 0.5/-----/φ 1.5
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(mm)	1.5 BTDC
Pulser Coil Resistance(Ω)	White/Red~Black:14±10%
Charge Coil Resistance(Ω)	Brown~Black:556±10%
Lighting Coil Resistance(Ω)	Yellow~Black:0.19±10%
Primary Ignition Coil Resistance(Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance(kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate(A)	-----

PZ480EN

1989 SERVICE DATA

September, 1988



MODEL-	PZ480EN (86H)
Engine Number/Starting Frame Number	86H/86H-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/LH:8V002, RH:80L01
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)	9.7±1
Idle RPM	APPROX. 1600
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 0.5/-----/φ 1.5
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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black:14±10%
Charge Coil Resistance (Ω)	Brown~Black:556±10%
Lighting Coil Resistance (Ω)	Yellow~Black:0.19±10%
Primary Ignition Coil Resistance (Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance (kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate (A)	YUASA:YB14L-A2/1.28/1.4

PZ480FXN

1989 SERVICE DATA

September, 1988



S89-012

MODEL	PZ480FXN (86F)
Engine Number/Starting Frame Number	86F/86F-010101
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/LH:8V002, RH:80L01
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)	9.7±1
Idle RPM	APPROX. 1600
Pilot (Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	φ 0.5/-----/φ 1.5
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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black:14±10%
Charge Coil Resistance (Ω)	Brown~Black:556±10%
Lighting Coil Resistance (Ω)	Yellow~Black:0.19±10%
Primary Ignition Coil Resistance (Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance (kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate (A)	-----

VMX540N

1989 SERVICE DATA

September, 1988



MODEL-	VMX540N (86T)
Engine Number/Starting Frame Number	86T/86T-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	MIKUNI/VM38/83X00
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/Pw. A. Jet/Main Air Jet	-----/LH: ϕ 1.2, RH: ϕ 1.3/ ϕ 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(mm)	1.6 BTDC
Pulser Coil Resistance(Ω)	White/Green~Black: 100±10%
Charge Coil Resistance(Ω) (High)	Red~White/Red: 50.5±10%
(Low)	Brown~Red: 245±10%
Lighting Coil Resistance(Ω)	Yellow~Black: 0.247±10%
Primary Ignition Coil Resistance(Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance(k Ω) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%

SR540N

1989 SERVICE DATA

September, 1988



MODEL-	SR540N (86U)
Engine Number/Starting Frame Number	86U/86U-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/Pw. A. 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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black: 14±10%
Charge Coil Resistance (Ω)	Brown~Black: 556±10%
Lighting Coil Resistance (Ω)	Yellow~Black: 0.19±10%
Primary Ignition Coil Resistance (Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance (kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%

XL540N

1989 SERVICE DATA

September, 1988



S89-015

MODEL-	XL540N (86K)
Engine Number/Starting Frame Number	86K/86K-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)	9.7±1
Idle RPM	APPROX. 1200
Pilot(Slow)Air Jet/Pw. A. Jet/Main air Jet (mm)	φ 0.8/-----/-----
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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black: 14±10%
Charge Coil Resistance (Ω)	Brown~Black: 556±10%
Lighting Coil Resistance (Ω)	Yellow~Black: 0.19±10%
Primary Ignition Coil Resistance (Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance (kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate (A)	YUASA: YB14L-A2/1.28/1.6

EX570N

1989 SERVICE DATA

September, 1988



S89-016

MODEL-	EX570N (86M)
Engine Number/Starting Frame Number	86M/86M-000101
ENGINE-	Liquid-cooled, Piston-valve, Twin
Displacement(cc)/Bore X Stroke(mm)	569/73 X 68
Piston Clearance(mm)	0.080~0.085
Piston Ring End Gap (Top/2nd) (mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/VM38/86M00
Main Jet	#320
Alternate Main Jets	#340, #290, #270, #250, #230
Jet Needle (Clip Position)	6FL68(3)
Idle Mixture Screw Turns Out	5/8
Power Jet/Pilot(Slow)jet	#200/#42.5
Float Height(mm)	18.1±1 (without gasket)
Idle RPM	APPROX. 1500
Pilot(Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	-----/φ 1.5/φ 2.5
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	PINK/Align adjustment mark 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(mm)	1.5 BTDC
Pulser Coil Resistance(Ω)	White/Red~Black:14±10%
Charge Coil Resistance(Ω)	Brown~Black:556±10%
Lighting Coil Resistance(Ω)	Yellow~Black:0.19±10%
Primary Ignition Coil Resistance(Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance(kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate(A)	-----

EX570EN

1989 SERVICE DATA

September, 1988



MODEL-	EX570EN (86N)
Engine Number/Starting Frame Number	86N/86N-000101
ENGINE-	Liquid-cooled, Piston-valve, Twin
Displacement(cc)/Bore X Stroke(mm)	569/73 X 68
Piston Clearance(mm)	0.080~0.085
Piston Ring End Gap (Top/2nd) (mm)	0.20~0.40/0.20~0.40
CARBURETOR-	
Manufacturer/Type/I. D. Number	MIKUNI/VM38/86M00
Main Jet	#320
Alternate Main Jets	#340, #290, #270, #250, #230
Jet Needle (Clip Position)	6FL68(3)
Idle Mixture Screw Turns Out	5/8
Power Jet/Pilot(Slow) jet	#200/#42.5
Float Height(mm)	18.1±1 (without gasket)
Idle RPM	APPROX. 1500
Pilot(Slow) Air Jet/Pw. A. Jet/Main Air Jet (mm)	-----/φ 1.5/φ 2.5
AUTOLUBE PUMP-	
Colour/Adjustment(mm)	PINK/Align adjustment mark 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 (mm)	1.5 BTDC
Pulser Coil Resistance (Ω)	White/Red~Black: 14±10%
Charge Coil Resistance (Ω)	Brown~Black: 556±10%
Lighting Coil Resistance (Ω)	Yellow~Black: 0.19±10%
Primary Ignition Coil Resistance (Ω) (TOYO DENSO/HITACHI)	0.12±8%/0.15±20%
Secondary Ignition Coil Resistance (kΩ) (TOYO DENSO/HITACHI)	4.0±20%/3.5±20%
Battery Type/Spec. Gravity/Charge Rate (A)	YUASA YB16AL-A2/1.28/1.6

VK540EN

1989 SERVICE DATA

September, 1988



MODEL-	VK540EN (86R)
Engine Number/Starting Frame Number	86R/86R-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/Pw. A. Jet/Main Air Jet (mm)	φ 0.8/-----/-----
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(mm)	1.5 BTDC
Pulser Coil Resistance(Ω)	White/Red~Black:20±20%
Charge Coil Resistance(Ω)	Brown~Black:275±20%
Lighting Coil Resistance(Ω)	Yellow~Black:0.3±20%
Primary Ignition Coil Resistance(Ω)	0.2±20%
Secondary Ignition Coil Resistance(kΩ)	4.9±20%
Battery Type/Spec. Gravity/Charge Rate(A)	YUASA:YB16AL-A2/1.28/1.6

SV80N

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-019A

MODEL	SV80N (85X)
Engine Number/Starting Frame Number	85X/85X-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 - 20/85X00
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)	16.3 ± 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 (mm)	1.3 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 440 ± 20%
Charge Coil Resistance (Ω)	Brown ~ Black: 560 ± 20%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.7 ± 20%
Primary Ignition Coil Resistance (Ω)	0.7 ± 20%
Secondary Ignition Coil Resistance (kΩ)	7.1 ± 20%
Battery Type/Spec. Gravity/Charge Rate (A)	-----

SV80EN

1989 SERVICE DATA REVISION

FEBRUARY, 1989



S89-020A

MODEL	SV80N (85X)
Engine Number/Starting Frame Number	85Y/85Y-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 - 20/85X00
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)	16.3 ± 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 (mm)	1.3 BTDC
Pulser Coil Resistance (Ω)	White/Red ~ Black: 440 ± 20%
Charge Coil Resistance (Ω)	Brown ~ Black: 560 ± 20%
Lighting coil Resistance (Ω)	Yellow ~ Black: 0.7 ± 20%
Primary Ignition Coil Resistance (Ω)	0.7 ± 20%
Secondary Ignition Coil Resistance (kΩ)	7.1 ± 20%
Battery Type/Spec. Gravity/Charge Rate (A)	GS:GM7 - 3B - 1/1.28/ 0.8 (NIKON DENCHI)

EX570L, EX570M/EM with S88-037 Carb./Air Box Change
EX570N/EN, CS340N/EN, ET400TN/TRN

ACCESSORY FRESH AIR INTAKE KIT

October 5, 1988



S89-021

Fresh Air Intake Kits have been developed for the above-mentioned models. Just as fresh air induction enhances performance on our FZR Motorcycle models, these kits will improve the performance of the Snowmobile models mentioned by reducing the intake air temperature. The kits have proven to be especially helpful during high altitude (4000 ft and above) operation in deep snow and or climbing hills to eliminate hesitation and/or bogging.

PARTS INFORMATION

Part Number	Application	Dealer Net	Suggested Retail
90891-50099 <i>5/2 TD</i> <i>86m-W1445-00</i>	EX570L with S88-037 EX570M/EM with S88-037 EX570N/EN	~~\$39.97~~ <i>89.17</i>	~~\$59.59~~ <i>139.11</i>
*85L-W1442-00	CS340N/EN	\$46.18	\$76.52
*85T-W2438-00	ET400TN/TRN	\$21.96	\$33.82

* Requires carburetor jetting.

Note: The installation instructions for these kits are included with the parts. We strongly recommend that the installation be done by the dealers service staff.

The Exciter kit contains new throttle cables which are longer to provide clearance for the air duct. The installation requires resetting the carburetor idle speed, TORS switches and synchronization.

Some cutting of the body work is required for the CS340 and ET400 kits.

The ET400 kit includes changes to the fuel and oil lines.

SNOWMOBILE BULLETIN

YPZ CLUTCH REPAIR PARTS

OCTOBER 25, 1988



Some units, primarily operated at high altitude have experienced rapid clutch wear after clutch rebuilding. We have found that in most cases, some of the worn parts were not replaced during the clutch rebuild, causing rapid wear of the new parts.

As a measure for this problem, we have specially reduced the parts price for the required rebuild parts. We hope that this special pricing will be extended to the customer, so that the correct clutch rebuild is performed as required.

PART NUMBER	DESCRIPTION	D/N	S/R
82M-17640-01	Spider Comp.	58.74	73.43
82M-17632-90	Clutch Weight	5.96	7.45
90387-086G4	Collar (Roller)	1.01	1.26
90387-105V5	Collar	.99	1.24
90202-08138	Washer, Plate	.14	.18
90386-08166	Bush	3.45	4.31
90386-07152	Bush	3.56	4.45
90201-077F5	Washer, Plate	.14	.18
93607-44190	Pin, Dowel	1.80	2.25

Please refer to your Regional Service Representative if you require further information, regarding proper clutch rebuilding procedures.

You are under no obligation to accept suggested retail prices, and will in no way suffer in your business relations with us or anyone else, if you do not accept the suggestions.

NOTE: This bulletin has been issued for informational purposes only. No warranty coverage applies.

VK540M

#6 SHAFT FRAME REINFORCEMENT

NOVEMBER 1988



S89-023

INTRODUCTION

- PROBLEM:** Some VK540M models have experienced cracking of the tunnel around the #6 shaft mounting location.
- CAUSE:** Flexing of the mounting area when unit is ridden hard on rough trail conditions eventually creates cracking.
- REMEDY:** A special reinforcement patch for the #6 shaft mounting area eliminates the flexing and subsequent cracking.

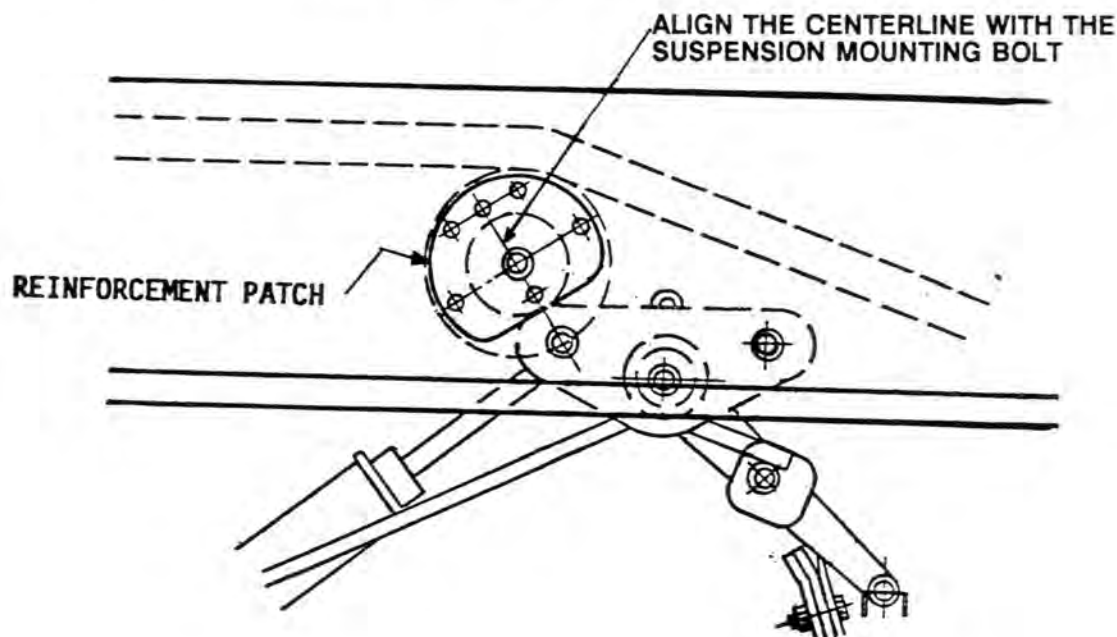
AFFECTED UNITS

All 1988 VK540M

SERVICE PROCEDURE:

1. Remove the #6 shaft mounting bolts from both sides of tunnel.
2. Bolt the #6 shaft back in position with the patch on the outside of the tunnel.
3. Align the patches as shown in the illustration.
4. Drill the pop rivet holes in the tunnel using the holes in the patch as a guide.
5. Pop rivet the patches (both sides of tunnel).
Note: Drill and pop rivet one hole at a time.
6. Torque the #6 shaft bolts to spec.

TIGHTENING TORQUE: (6.9m.kg., 50ft. lb.)



YAMAHA

MOTOR CANADA LTD.
MOTEUR DU CANADA LTÉE

PARTS INFORMATION:

PART NUMBER	DESCRIPTION	QTY.
83R-21942-09	Pivot Pipe Bracket	2
90267-48060	Blind Rivet (Black)	12

ORDER THE PARTS YOU REQUIRE FROM REGIONAL PARTS

WARRANTY INFORMATION

To obtain Warranty Coverage for this information indicate the following information on your warranty request.

TROUBLE CODE: S923

PARTS: AS PER THE PARTS INFORMATION ABOVE

LABOUR: 0.5 HOURS

EX570

SERVICE TIP

October 28, 1988



S89-024

BULLETIN TECHNIQUE/TECHNICAL BULLETIN

Bulletin S88-037 describes the modifications to the carb and air box as a countermeasure for the piston seizure problem. When you are performing this modification, you should be checking the engine, to be sure that the unit has not been partially seized. Checking compression may not be enough. You should remove the exhaust "Y" pipe and look at the piston skirt through the exhaust port.

NOTE: This bulletin has been issued for information purposes only.

ET400TN/TRN
OWNER'S MANUAL CORRECTION
NOVEMBER, 1988



S89-026

We have found that the Owner's Manual for the above models has an incorrect specification for the Oil Pump Cable Freeplay.

Please make the correction shown below on all Owner's Manuals for the ET400TN/TRN Part No. 85T-28199-70

Page 78 of the above manual.

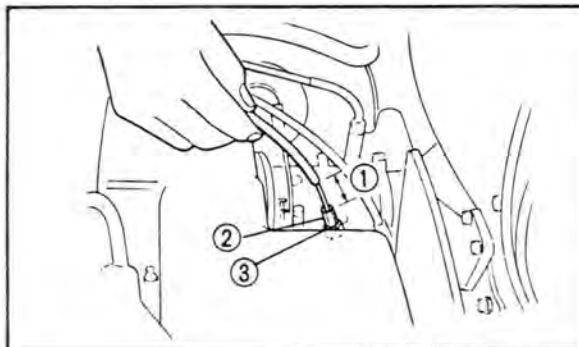
INCORRECT

Freeplay: 25 ± 1 mm ($0.98 = 0.04$ in)

CORRECT

Freeplay: 22 ± 1 mm ($0.87 = 0.04$ in)

1. Freeplay
2. Adjusting screw
3. Lock nut



ET400TN/TRN
CYLINDER HEAD TORQUE
NOVEMBER, 1988



S89-027

INTRODUCTION

PROBLEM: Some of the above mentioned models have experienced piston seizure.

CAUSE: The actual tightened torque of the cylinder head nuts was found to be excessive.

REMEDY: Loosen and retighten to the correct torque all ET400 cylinder head nuts.

DEALER ACTION PLAN

NEW UNSOLD UNITS: Perform the service procedure outlined in this bulletin when you are doing the P.D.I. on the unit.

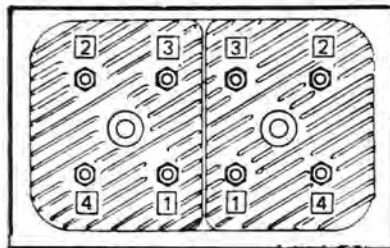
SOLD UNITS: Please contact your customers immediately so that the unit can be returned to have the service procedure outlined in this bulletin performed.

AFFECTED UNITS

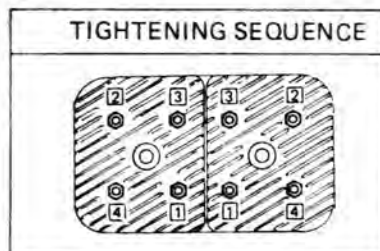
All ET400TN and ET400TRN Models

SERVICE PROCEDURE

- 1 Remove the cylinder air shroud
- 2 Loosen the cylinder head nuts
NOTE: Follow the numerical order shown in the illustration. Start by loosening each nut 1/2 turn until all are loose.



- 3 Torque the cylinder head nuts in two stages, in the sequence as shown in the illustration.
Tightening torque First: 10 Nm (1.0 m.kg, 7.2 ft. lb.)
Final: 25 Nm (2.5 m.kg, 18 ft. lb.)



WARRANTY INFORMATION

To receive warranty coverage for this procedure, please indicate the following information on your warranty request.

TROUBLE CODE: S927

LABOUR: 0.3 HOURS

NOTE:

1. You may indicate up to 10 serial numbers on a single request form provided the model name and trouble codes are the same for all units.
2. Submit a warranty request only for those units which you have performed the

EX570M/EX570EM

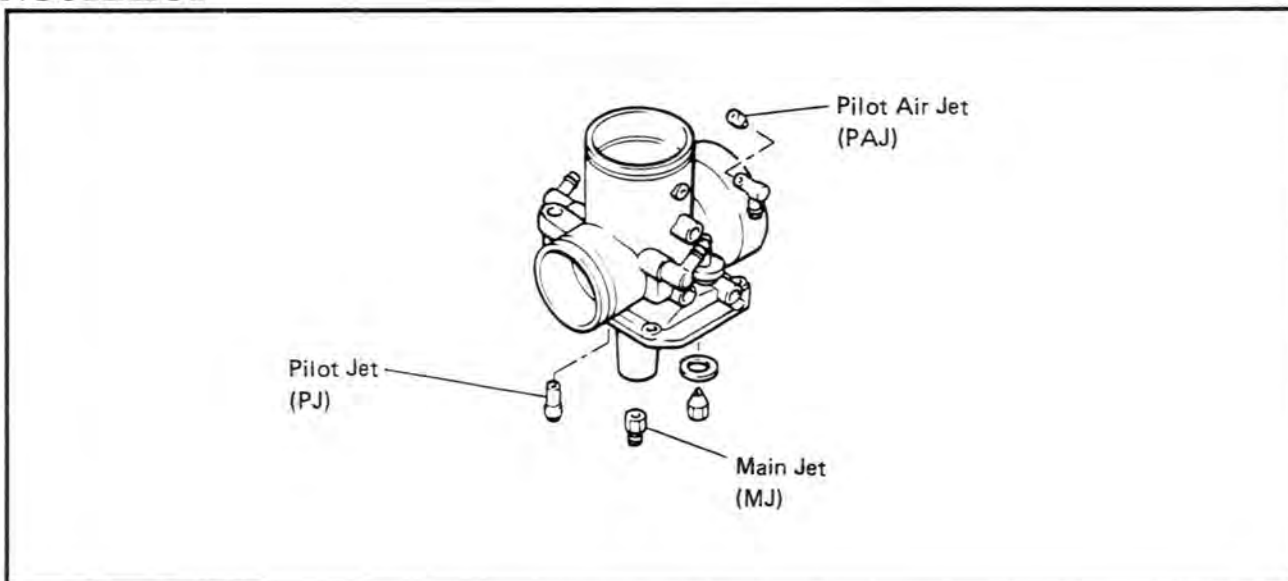
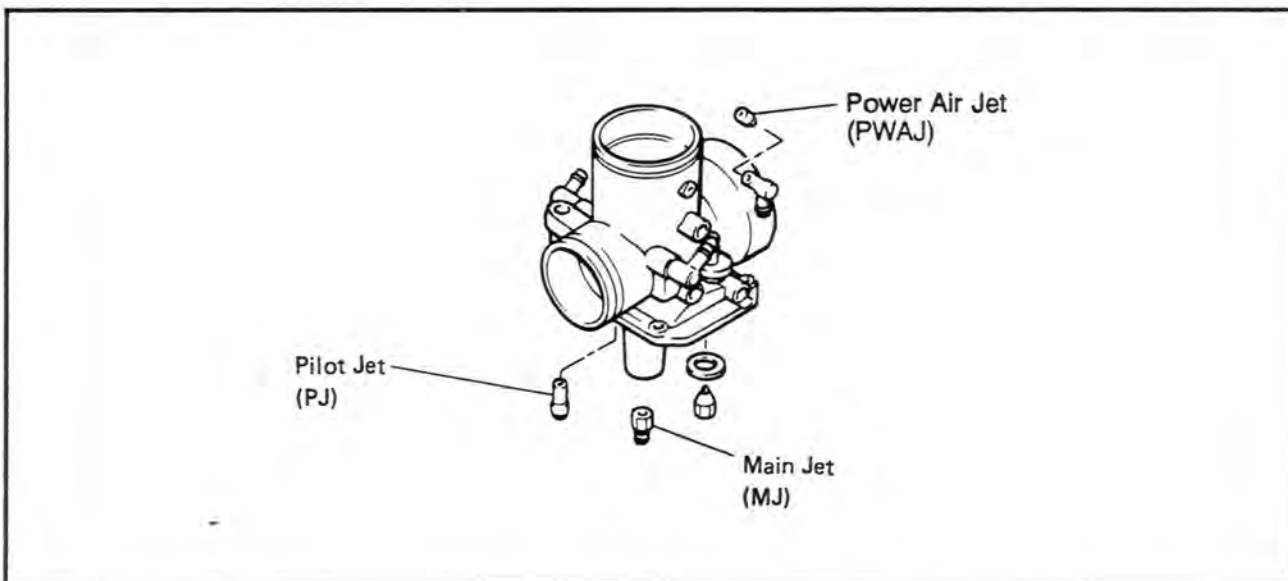
SERVICE MANUAL CORRECTION

NOVEMBER, 1988



S89-028

The illustration shown on page 2-65 of the EX570M/EX570EM Service Manual (part # 84M-28197-20) identifies the Power Air Jet (PAWJ) as the Pilot Air Jet (PAJ). Please correct your manuals as shown below.

INCORRECT**CORRECT**

NOTE: This bulletin has been issued for information purposes only.

CS340N/EN
SPARK PLUG FOULING
DECEMBER, 1988



S89-030

INTRODUCTION

PROBLEM:

Recent field information indicates that during the initial running in period, some customers have experienced spark plug fouling during continuous low speed riding together with an indication that the carburetion is rich

CAUSE:

On some units the carburetor jetting may be too rich, but we have also found that there are some vital adjustments/connections which must be checked and/or changed.

REMEDY:

Change the carburetor jetting to the new spec outlined in this bulletin and check the adjustments/connections as per the outlined service procedure.

AFFECTED UNITS

All CS340N/EN Models

DEALER ACTION SUMMARY:

1. **Unsold Units:**
Perform the modifications outlined in this bulletin at set-up/predelivery on all CS340N/EN models.
2. **Sold Units:**
Contact the owners of all CS340N/EN models and make arrangements to have the modifications outlined in this bulletin performed.

SERVICE PROCEDURE:

1. Remove the carburetor per the instructions in the service manual and remove the float bowl.

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

2. Remove both #72 pilot jets, the #132 main jet (right side) and #128 main jet (left side).
3. Install the new #70 pilot jets, the new #130 main jet (right side) and #126 main jet (left side).
4. Check the float height and adjust if required.
Carb float height spec 31mm $\pm$ 1mm
Reassemble float bowl.

BULLETIN S89-030 (page 2 of 2)

5. Connect your pocket tester (OHMS x 1 scale) to the carburetor T.O.R.S. switch leads and check the resistance. The switch should read 0 OHMS at the closed (idle) position.

NOTE: Check by opening and closing the throttle several times to ensure the switch consistently reads 0 OHMS in the closed position.

Replace the carb T.O.R.S. switch if required.

6. Adjust the pilot screws (idle mixture screws) to 1 3/4 turns out from the lightly seated position.
7. Install the carburetor per instructions in the service manual.
8. Remove the front ignition coil mounting screw and remove the ground lead from the white plastic band on the front of the engine. Inspect the eye connector on the ground lead for signs of cracking where it is bent. Replace the connector if it is found to be damaged. Install the mounting screw ensuring that the eye connector points down and that no part of the lead or connector is in contact with the inlet air shroud.

NOTE: Check that there is sufficient slack in the ground lead after final installation.

9. Start the engine and idle for three minutes to ensure the fuel in the float bowl is mixed with oil. Adjust both pilot screws (idle mixture screws) and the idle speed adjustment for a stable idle speed of 1,800 R.P.M..

PARTS INFORMATION:

PART NUMBER	DESCRIPTION	QTY.	DLR. NET
85L-14342-35	#70 pilot jet (both sides)	2	6.19 ea.
288-14343-65	#130 main jet (right side)	1	2.55 ea
*85L-14343-63	#126 main jet (left side)	1	2.85 ea.

ORDER THE PARTS YOU REQUIRE FROM REGIONAL PARTS

* **NOTE:** The parts fiche for this model does not indicate this part number for the #126 main jet.

WARRANTY INFORMATION

To obtain warranty coverage for this modification please indicate the following information on your warranty request.

TROUBLE CODE: S930

LABOUR: 0.8 hours

PARTS: As per parts information

NOTE:

1. Submit a warranty request only for units which you have actually performed this modification.
2. You may indicate up to 10 serial numbers on a single request form, if all the information is the same.