

## MIE 5.7 COMPETITION SKI ENGINE SPECIFICATIONS

NUMBER: 85-23

CIRCULATE TO:  
 SERVICE MANAGER   
 PARTS MANAGER   
 MECHANICS   
 "Place in a Service  
 Bulletin Binder"

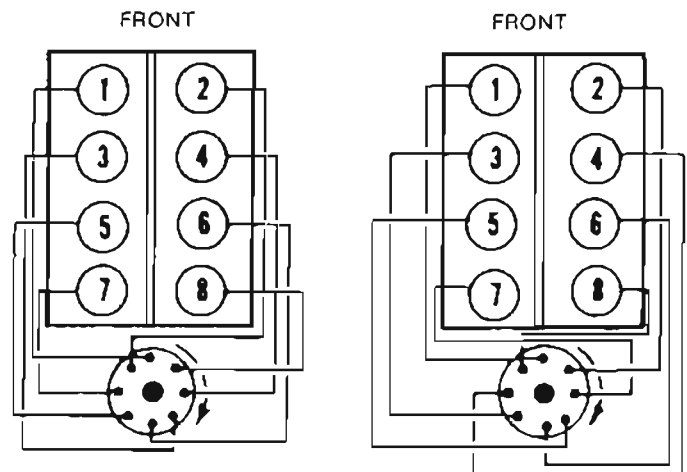
- A. Tune-Up Specifications
- B. Electrical Specifications
- C. Carburetor Specifications
- D. Internal Engine Specifications
- E. Torque Specifications
- F. Wiring Diagram
- G. Water Flow Diagram

### A. TUNE-UP SPECIFICATIONS

Horsepower (Kilowatts)	260 (194)
Displacement	350 CID (5.7 Litres)
Engine Type and Number of Cylinders	V-8
Bore	4.000" (101.6mm)
Stroke	3.480" (88.39mm)
Compression Ratio	9.0:1
Compression Pressure	150 PSI (1035 kPa)
Point Gap	.016"-.019" (.41-.48mm)
Point Dwell	28° - 31°
Point Spring Tension	25-30 oz. (709-850 g)
Spark Plug Type	AC-MR43T or Champion RV8C
Spark Plug Gap	.035" (.9mm)
Timing at Idle RPM	10° BTDC
Maximum RPM at Wide-Open-Throttle	4000-4400
Idle RPM in Forward Gear	650-700
Firing Order	Figure 1 or 2
Fuel Required	86 Octane Minimum (Average Octane Rating)
Fuel Pump Pressure	3-7 PSI (21-48 kPa)
Electrical System	12-Volt Negative Ground
Alternator Rating	55 Amperes

Recommended Battery Rating	Min. 350 Amps - Cold Cranking Amperage
Crankcase Oil Capacity with New Filter (Approx.)*	4 Qts. (3.8 Litres)
Oil Pressure at 2000 RPM	30-55 PSI (207-379 kPa)
Valve Lash	1 Turn Down From Zero Lash
Thermostat	143°F (62°C)
Cooling System Capacity (Approx.)*	15 Qts. (14.1 Litres)
Transmission Oil Capacity - In-Line Direct Drive*	2 Qts. (1.9 Litres)
Transmission Oil Capacity - In-Line with Reduction*	3 Qts. (2.9 Litres)

\* *Approximately.*  
 ALWAYS use dipstick to determine exact quantity of oil required.



Firing Order  
 1-8-4-3-6-5-7-2  
**Figure 1.**  
 L.H. Rotation

Firing Order  
 1-2-7-5-6-3-4-8  
**Figure 2.**  
 R.H. Rotation

## B. ELECTRICAL SPECIFICATIONS

### IGNITION SPECIFICATIONS

Engine Model	260 SKI
Resistor Wire (Ohms)	1.8 - 2 Ohms
Spark Plug Type Spark Plug Gap Point Dwell Point Spring Tension Timing	Refer to "Tune-Up Specifications"
Condenser	.26-.30 MFD

Engine Model	260 SKI
Coil	Part No. 32193
Coil Primary Resistance (Ohms) Minimum	1.1
Coil Primary Resistance (Ohms) Maximum	1.5
Coil Secondary Resistance (Ohms)	9,500-15,000

### STARTER MOTOR SPECIFICATIONS

Identification Number	No Load Test						Brush Spring Tension
	Rotation	Volts	Min. Amps	Max. Amps	Min. RPM	Max. RPM	
50-99418 (Delco-Remy) (1109482)	L.H. (Std.)	10.6	65	115	6,400	10,800	56-105 oz. (1588-2976 g)
50-12177 (Delco-Remy) (1998566)	L.H. (Std.)	10.6	70	120	5,400	10,800	56-105 oz. (1588-2976 g)
50-99419 (Delco-Remy) (1109485)	R.H. (Opp.)	10.6	70	120	5,400	10,800	56-105 oz. (1588-2976 g)

## C. CARBURETOR SPECIFICATIONS

All Measurements are  $\pm 1/64"$  (.4mm)

Make (Model)	Rochester (4MV)
Part No. Mercury/Rochester	1347-9415 (17085013)
Float Level	15/64" (5.9mm)
Pump Rod Hole Location	Inner
Accelerator Pump (NOTE 1)	23/64" (9.1mm)
Air Valve Dash Pot (Air Valve Rod)	.025" (.64mm)
Vacuum Break	.080" [5/64" (2.0mm)]
Air Valve Spring Wind Up	5/8 Turn (80-95 g)
Choke Coil Rod (NOTE 2)	Top of Rod Even with Bottom of Hole

Main Jet	.069"
Metering Rod (Primary)	.042"
Metering Rod (Secondary)	CL
Idle Mixture Screw, Preliminary Setting	2-3 Turns

#### NOTES:

- 1) Accelerator Pump Measurement Taken From Flame Arrestor Mounting Surface to Pump Stem With Throttle Plates Fully Closed.
- 2) Choke Coil Rod Adjustment Performed With Choke Valve Completely Closed, Choke Rod in Bottom of Choke Lever Slot and Choke Coil Rod Pushed Down to End of Travel.

## D. INTERNAL ENGINE SPECIFICATIONS

### Cylinder Bore:

Diameter		3.9995" - 4.0025" (101.5873 - 101.6635mm)	
Out of Round	Production	.001" (.025mm) Max.	
	Service	.002" (.051mm) Max.	
Taper	Production	Thrust Side	.0005" (.0127mm) Max.
		Relief Side	.001" (.025mm) Max.
	Service		.001" (.025mm) Max.

### Piston:

Clearance	Production	.0007" - .0017" (.0178 - .0432mm)
	Service	.0027" (.0686mm) Max.

### Piston Ring: (1) HI Production Limit

Compression	Groove Side Clearance	Production	Top	.0012" - .0032" (.0305 - .0813mm)
			2nd	.0012" - .0032" (.0305 - .0813mm)
		Service		(1) +.001" (.025mm)
	Gap	Production	Top	.010" - .020" (.254 - .508mm)
			2nd	.010" - .025" (.254 - .635mm)
		Service		(1) +.010" (.254mm)
Oil	Groove Side Clearance	Production	.002" - .007" (.051 - .178mm)	
		Service	(1) +.001" (.025mm)	
	Gap	Production	.015" - .055" (.381 - 1.397mm)	
		Service	(1) +.010" (.254mm)	

### Piston Pin:

Diameter		.9270" - .9273" (23.5458 - 23.5534mm)
Clearance	Production	.00025" - .00035" (.00635 - .00889mm)
	Service	.001" (.025mm) Max.
Fit in Rod		.0008" - .0016" (.0203 - .0406mm) Interference

### Crankshaft:

Main Journal	Diameter	No. 1	2.4484" - 2.4493" (62.1894 - 62.2122mm)
		No. 2, 3	2.4481" - 2.4490" (62.1817 - 62.2046mm)
		No. 4	2.4479" - 2.4488" (62.1767 - 62.1995mm)
	Taper	Production	.0002" (.0051mm) Max.
		Service	.001" (.025mm) Max.
	Out of Round	Production	.0002" (.0051mm) Max.
Main Bearing Clearance	Production	No. 1	.0008" - .0020" (.0203 - .0508mm)
		No. 2, 3	.0011" - .0023" (.0279 - .0584mm)
		No. 4	.0017" - .0032" (.0432 - .0813mm)
	Service	No. 1	.001" - .0015" (.0254 - .0381mm)
		No. 2, 3	.001" - .0025" (.0254 - .0635mm)
		No. 4	.0025" - .0035" (.0635 - .0889mm)
Crankshaft End Play		.002" - .006" (.051 - .152mm)	
Connecting Rod Journal	Diameter		2.0988" - 2.0998" (53.3095 - 53.3349mm)
	Taper	Production	.0005" (.0127mm) Max.
		Service	.001" (.025mm) Max.
	Out of Round	Production	.0005" (.0127mm) Max.
Service		.001" (.025mm) Max.	
Rod Bearing Clearance	Production	.0013" - .0035" (.0330 - .0889mm)	
	Service	.003" (.0762mm) Max.	
Rod Side Clearance		.008" - .014" (.152 - .356mm)	
Crankshaft Runout		.0015" (.0381mm) Max.	

**Camshaft and Drive:**

Lobe Lift ± .002" (.051mm)	Intake	.263" (6.6802mm)
	Exhaust	.269" (6.8326mm)
Journal Diameter		1.8682" - 1.8692" (47.452 - 47.478mm)
Journal Out-of-Round		.001" (.025mm) Max.
Camshaft End Play		.004" - .012" (.102 - .304mm)
Timing Chain Deflection		3/8" (9.5mm) From Taut Position [3/4" (19.1mm) Total]

**Valve System:**

Lifter Type		Hydraulic	
Rocker Arm Ratio		1.50 to 1	
Valve Lash (Intake & Exhaust)		1 Turn Down from Zero Lash	
Face Angle (Intake & Exhaust)		45°	
Seat Angle (Intake & Exhaust)		46°	
Seat Runout (Intake & Exhaust)		.002" (.051mm) Max.	
Seat Width	Intake	1/32" - 1/16" (.79 - 1.59mm)	
	Exhaust	1/16" - 3/32" (1.59 - 2.38mm)	
Stem Clear- ance	Production	Intake	.0010" - .0027" (.0254 - .0686mm)
		Exhaust	.0010" - .0027" (.0254 - .0686mm)
	Service	Intake	.0037" (.0940mm)
		Exhaust	.0047" (.1194mm)
Valve Spring	Free Length		2.03" (51.6mm)
	Pressure Lbs. @ In. (NOTE 1)	Closed @ 1.70" (43.16)	76 - 84 Lbs. (34.5 - 38.1kg)
		Open @ 1.25" (31.75mm)	194 - 206 Lbs. (88.1 - 93.5kg)
	Installed Height		1-19/32" (40.5mm)
Dampener	Free Length		1.86" (47.24mm)
	Approximate No. of Coils		4

NOTE 1: Test spring pressure with dampener removed.

**Cylinder Head:**

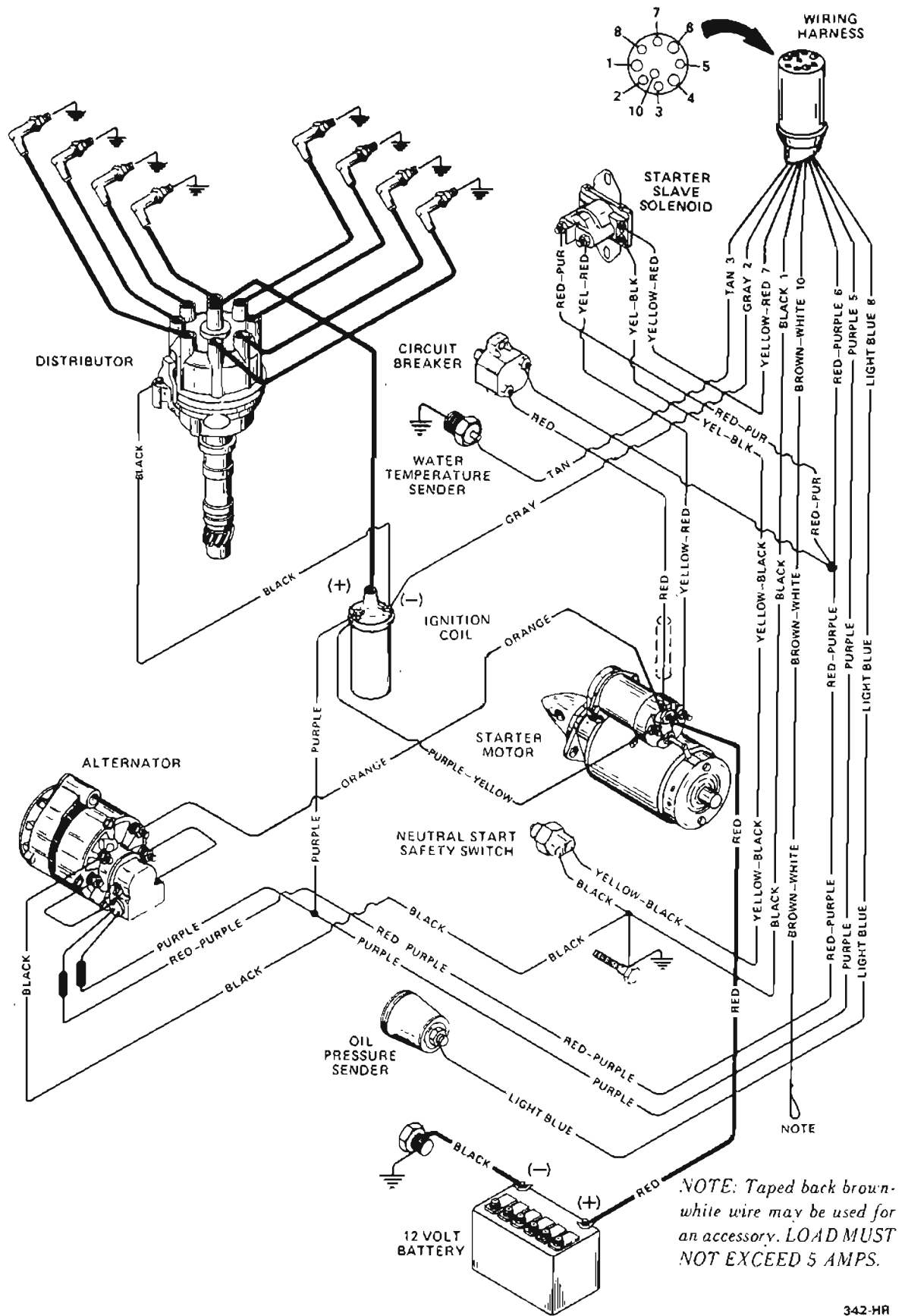
Gasket Surface Flatness	.003" (.076mm) in 6" (15.24cm) .007" (.178mm) Overall Maximum
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**Flywheel:**

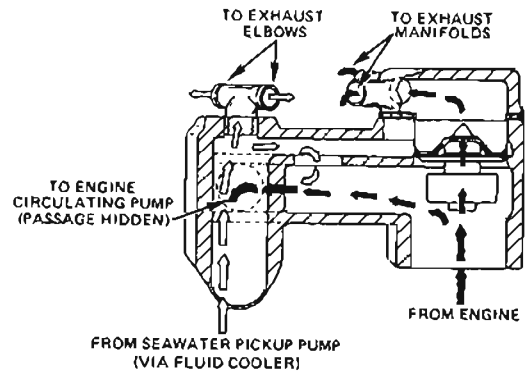
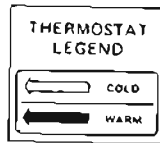
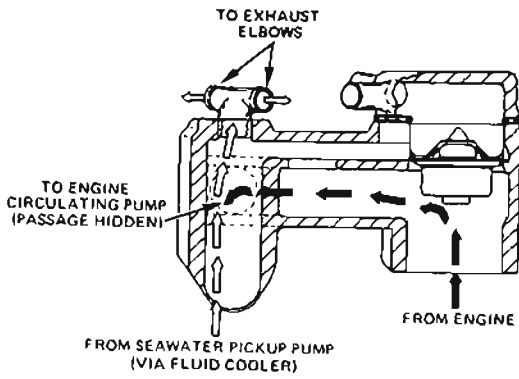
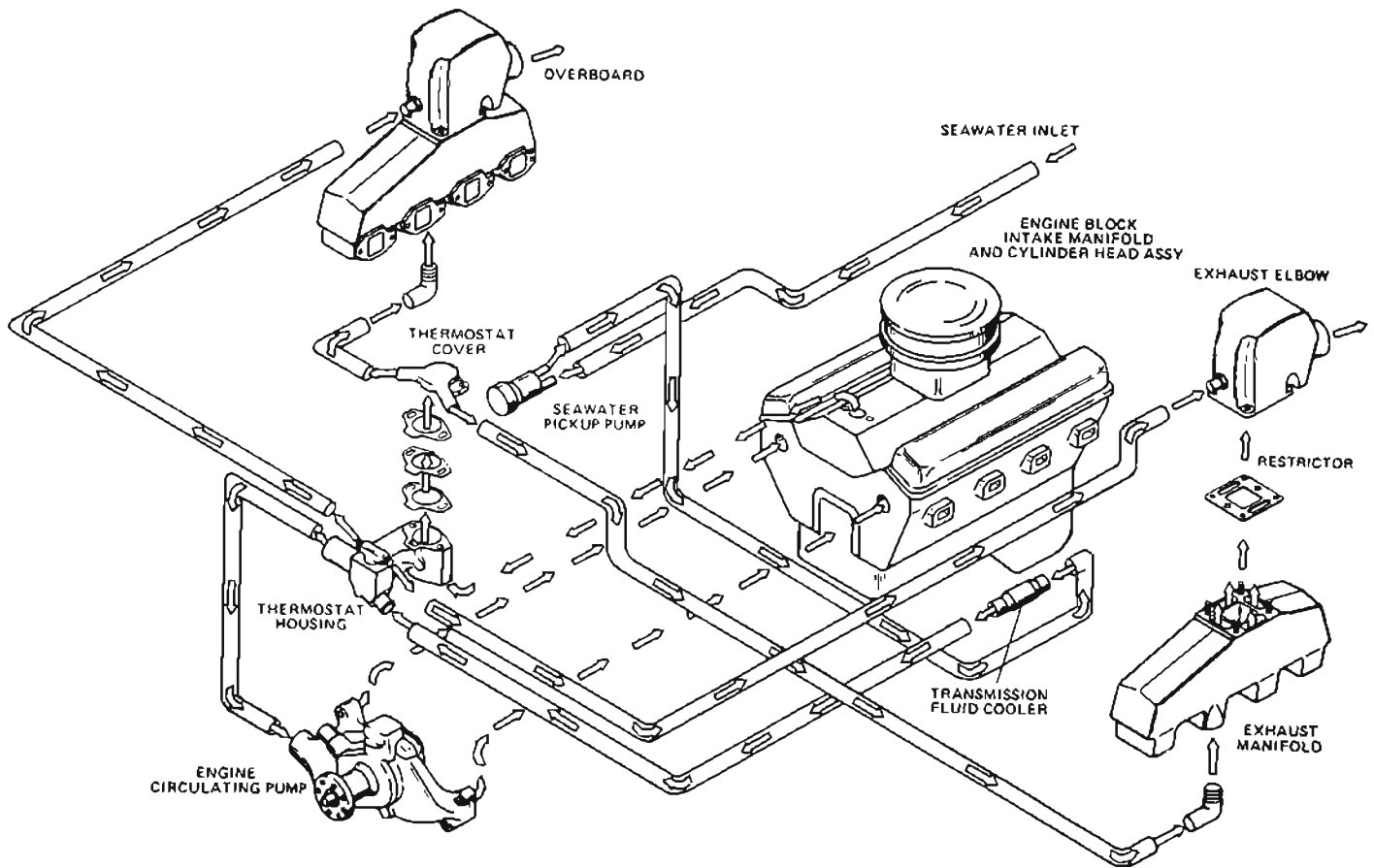
Runout	.008" (.203mm) Max.
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**E. TORQUE SPECIFICATIONS**

Camshaft Sprocket/Gear	20 LB. FT. (27 N.m)
Conn. Rod Cap	45 LB. FT. (61 N.m)
Crankcase Front Cover	80 LB. IN. (9 N.m)
Cylinder Head	75 LB. FT. (102 N.m)
Distributor Clamp	20 LB. FT. (27 N.m)
Exhaust Manifold	20 LB. FT. (27 N.m)
Flywheel	60 LB. FT. (81 N.m)
Flywheel Drive Plate	35 LB. FT. (48 N.m)
Flywheel Housing	30 LB. FT. (41 N.m)
Intake Manifold	40 LB. FT. (54 N.m)
Main Bearing Cap	85 LB. FT. (115 N.m)
Oil Filter	25 LB. FT. (34 N.m)
Oil Filter By-Pass Valve	80 LB. IN. (9 N.m)
Oil Pan to Crankcase (5/16-18)	165 LB. IN. (19 N.m)
Oil Pan to Crankcase (1/4-20)	80 LB. IN. (9 N.m)
Oil Pan Drain Plug	20 LB. FT. (27 N.m)
Oil Pump	65 LB. FT. (88 N.m)
Oil Pump Cover	80 LB. IN. (9 N.m)
Rocker Arm Cover	60 LB. IN. (7 N.m)
Spark Plug	180 LB. IN. (20 N.m)
Torsional Damper	70 LB. FT. (95 N.m)
Water Pump	30 LB. FT. (41 N.m)



F. MIE 5.7 SKI WIRING DIAGRAM



COOLANT FLOW THROUGH THERMOSTAT HOUSING WITH THERMOSTAT CLOSED

COOLANT FLOW THROUGH THERMOSTAT HOUSING WITH THERMOSTAT OPEN

### G. MIE 5.7 SKI WATER FLOW DIAGRAM