# AME HARLEY-DAVIDSON SERVICE BULLETIN

No. 660

DICTION

March 4, 1974

## SPECIFICATIONS / 1974 SX-175

This bulletin contains information regarding fitting specifications and tightening torque specifications for the 1974 SX-175 model.

Procedures for adjusting the clutch control and rear wheel removal are also given. These procedures should be followed instead of ones given in the SX-175 Owner's Manual which are incorrect because of design changes. A supplement sheet is being made for future Owner's Manual shipments.

### FITTING SPECIFICATIONS

PISTON	
Fit in cylinder	.001 to .002 in. loose
Piston ring side clearance	upper .004 to .006 in.
	lower .003 to .005 in.
Piston ring end gap	.008 to .014 in.
Piston pin fit in piston	light press at 70° F.
Piston pin fit in connecting rod roller bearing • • •	.0001 to .0003 in. loose

### CONNECTING ROD AND CRANKSHAFT

End play between crank throws	.012 to .016 in.
Fit on crankpin bearing	.0004 to .0008 in loose
Crankshaft end play	.002 to .004 in.

### MISCELLANEOUS

Oil pump shaft end play	.006 to .008 in.
Carburetor float setting (base to float top)	15/16 in.
Front wheel rim to hub (offset) (brake side) $\cdot$ · · · ·	1/32 in.
Rear wheel rim to hub (offset) (brake side) •••••	7/16 in.

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### IGNITION

Spark j	olug
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Type	lson No. 7-8 or No. 7
Gap setting	.025 in.
Torque	25 ft. lbs.
Pickup gap setting	.014 in.
Timing	20.5 <sup>°</sup> (.100 in.) B.T.C.
TRANSMISSION	
Clutch type ••••••••••••••••••••••••••••••••••••	oil wet multiple disc
Setup spring pressure	220 lbs.
Clutch shell gear end play	.004 to .008 in.
Starter shaft end play	.006 to .008 in.
Shifter shaft end play	.006 to .012 in.
Countershaft starter gear end play •••••••••	.008 to .080 in.
Starter gear with ratchet end play	.006 to .012 in.
Mainshaft 5th gear end play	.004 to .016 in.
Mainshaft 4th gear end play	.004 to .020 in.
Countershaft 1st gear end play • • • • • • • • • • • • • • • • • • •	.006 to .012 in.
Countershaft 3rd gear end play	.002 to .020 in.
Countershaft 2nd gear end play	.004 to .016 in.
Clutch gear on bushing clearance	.0005 to .0012 in.
Clutch gear bushing clearance on mainshaft spacer	.0005 to .001 in.
Shifter fork clearance on shaft	.0005 to .0015 in.
Mainshaft 5th gear clearance on shaft	.0015 to .0025 loose

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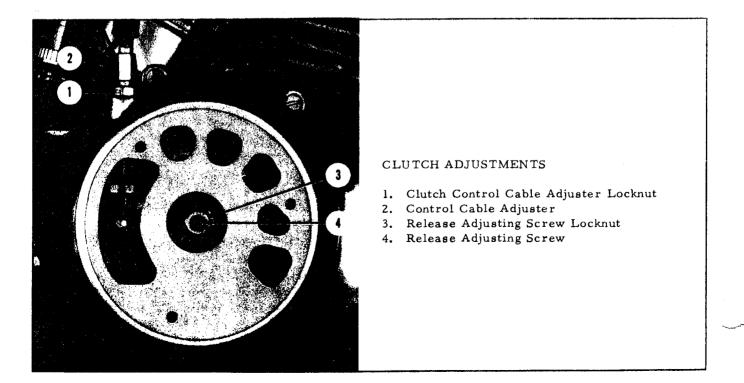
### Ft. - Lbs.

Oil injection pump mounting bolt (5mm)	6
Lubrication plate mounting bolt (6mm)	9
Transmission drain plug (10mm) • • • • • • • • • • • • • • • • • •	36
Engine mount bolt nut (8mm) • • • • • • • • • • • • • • • • • •	22
Footrest bolt (12mm)	80
Fork bracket clamping screw (10mm) (5) • • • • • • • • • • • • • • • • • • •	25
Steering head nut (24mm) • • • • • • • • • • • • • • • • • •	38
Fork drain screw (6mm) • • • • • • • • • • • • • • • • • •	7
Handlebar clamp screw (6 or 8mm)	12
Front fork axle clamping bolt nut (8mm) •••••••••••••	14
Handlebar clamp bolt nut (6mm)	. 5
Rear fork pivot shaft nut-right (20mm)	78
Rear fork pivot shaft nut-left (l4mm)	50
Shock absorber mounting nut (10mm)	31
Chain guard mounting screw nut (6mm)	1,0
Front fender screw nut (6mm) ••••••••••••••	10
Rear fender screw nut (6mm)	4
Headlamp nut (12mm) • • • • • • • • • • • • • • • • • •	43
Wheel axle nut (15mm) $\ldots$ $\ldots$ $\ldots$ $\ldots$ $\ldots$ $\ldots$ $\ldots$	58
Rear sprocket bolt (6mm)	14
Front brake torque arm screw (6mm)	7
Rear brake torque arm nut (6mm) •••••••••••••••••••••••••••••••••••	. 5
Side plate torque arm nut (10mm)	43
Brake Lever clamping screw (6mm) ••••••••••••••••	8

### CLUTCH ADJUSTMENT

Periodic adjustment of the clutch is required to compensate for lining wear. The need for adjustment will be indicated by the clutch slipping under load or dragging in released position. Every 2,000 miles or when clutch is not operating correctly, adjust controls as follows. See figure.

- 1. Remove access cover screws and access cover from right side crankcase.
- 2. See that clutch cable adjuster on left handlebar is adjusted outward several turns.
- 3. Loosen locknut (1) on control coil adjusting screw (2) and turn adjuster inward all the way.
- 4. Loosen locknut (3) on release screw (4) and turn screw inward until it starts to release the clutch (screw turns harder). Then turn the screw two turns farther inward. (This centers release balls in lowest position on cam).
- 5. Turn cable adjuster (2) back out to the position where all slack in cable is eliminated (no play at hand lever) and tighten locknut (1).
- 6. Adjust clutch releasing screw (4) by backing off until clutch is engaged (screw turns easier). Turn screw inward until point where free play is eliminated (screw turns harder), then back screw out 1/8 turn to establish slight release bearing free play. Check for correct free play at handlever and retighten locknut (3).



Minor cable adjustment can be made by loosening locknut and turning knurled nut located at clutch handlever on handlebar.

If the clutch slips under load or drags in disengaged position after free play has been adjusted as outlined above, it must be taken apart for inspection of the discs which may be worn and require replacement. When the clutch must be taken apart, it is advisable to have it serviced by a Harley-Davidson dealer who stocks any needed new parts.

#### REAR WHEEL

To remove rear wheel, remove axle nut, washer and adjusting plate on rightside of motorcycle. Insert rod in axle hole on left-side of motorcycle and partially withdraw axle by pulling with a twisting motion to free wheel, right side axle spacer and wheel bearing seal spacer. Move wheel to right to disengage from sprocket cushion rubber bushings.

#### NOTE

Be sure seal spacer is in correct position next to axle spacer between fork side and wheel when reassembled.

AMF HARLEY-DAVIDSON MOTOR CO., INC.