

7. EXHAUST SYSTEM

Inspect only those portions visible from the engine compartment.

7.1. SIX-CYLINDER EXHAUST SYSTEM

PART NAME	DRIVER	PASSENGER	NOTES
6-cyl manifold	3836108	none	(1)
header pipe	3706223	3706224	(2)
muffler	3706232	3706232	(3)
tail pipe	3706229	3706230	(4)
extension	?	?	(5) short until VIN -1268
	3711147	3711147	(5) long after VIN -2523

- (1) Rear three cylinders feed the driver's exhaust pipe. Front three cylinders feed the passenger's exhaust pipe. Iron casting number was located on the rear header outlet; Casting date was between the two forward ports (not visible when installed; early 1953 did not have a date). The thermostat spring is placed backwards to block the heat control valve in "off" position. The manifold was painted engine blue; paint burned off is OK.
- (2) Driver side curved sideways to clear powerglide. Passenger side curved forward to clear oil pan, then across engine. Both sides had PN cast in iron flange and no crossover pipe. The pipes were painted black.
- (3) Blueprints show a 13-inch main shell but apparently were never used in production; 20 inches is accepted as correct (replacements sold by Chevy dealers in the 1960's were 13 inches, but only two sets are known to exist). Mufflers were painted black.
- (4) Front attached to muffler with U-bolt; rear outlet held in place by tip mounted in the body directly above leaf spring.
- (5) Short version with blunt end extended 1.5 to 2 inches. Long version with rolled end extended about 6 inches.

NOTE: The above parts were held in place with U-bolts, clamps, insulators, and brackets. There were five attaching points: one on the passenger side of the transmission, two at the frame's X-member, and two at the rear frame near the axle. There were no grounding straps on the supports until mid-1955.



7.2. EIGHT-CYLINDER EXHAUST SYSTEM

Part Name	Driver	Pass	Note	Application
manifold	3704791	3704792	(1)	55 first design
	3837069	3836968	(1)	55 second design
	3725563	3725563	(2)	56 until VIN -1658; 2-bolt
	3731557	3731558	(2)	56 after VIN -1663; 3-bolt
	3733976	3733978		57 carb
	3733975	3733976	(3)	57 FI
	3749965	3750556	(4)	58-61 all; 62=250 hp only
	3797901	3797902	(5)	62 all except 250 hp
valve/spacer	none	3721509		55
	none	3725981		56 until VIN -1663; 2 bolt
	none	3731396		56 after VIN -1663; 3 bolt
	none	3734203		56-57 carb
		3734204		
	none	3746838		58-62 carb
	none	3737631		57 FI
	3750067		58-62 FI	
header pipe	?	?		55
	3735167	3735164	(6)	56-60 carb
	3735167	3735168		61 carb
	3741565	3741566		57-61 FI
	3798789	3798790	(7)	62 FI & large carb
crossover	3743232	3743231	(8)	FI after AIM 10-22-56 and 2-carb hi-lift after AIM 12-6-57
	3798804	3798803	(7)	62 FI & large carb
muffler	3706232	3706232		55 (oval)
	3736957	3737644		56-57 (round)
	3752561	3752562		58-61 (oval)
	3790799	3790800		62 (round)
tail pipe	3706229	3706230		55
	3736961	3737648		56-57
	3752555	3752556	(9)	58-60
	3796743	3796744	(9)	61 until AIM 8-7-61
	3796745	3796746	(10)	61-2 after AIM 8-7-61
extension	?	?		55
	3736706	3736706		56-57
	3762440	3762440		58-60
	none	none		61-62



Manifolds: All manifolds were cast iron with a mounting boss at the front; original castings had slag on top.

- (1) The top surface of 1955 manifolds is flat.
- (2) Beginning 1956, the top surface of the manifold is curved, or "ram's horn" style (same as 2-carb pass cars). The first design has a 2-bolt flange; the second design is a 3-bolt. The change occurred between VIN -1658 and -1663.
- (3) For FI, the passenger side is not drilled for a choke heat sensor.
- (4) 1956-62: pipe flanges are all stamp steel type
1958-62: Same casting all years; has two bosses at front
On pass side, each boss has 7/16-14 threaded hole for the generator
PN changed often due to flange studs
1958: Exhaust flange outlet studs are 1.43 inches long
Threads run full length of stud
1959-62: Exhaust flange outlet studs are 1.50 inches long
Ends of stud are threadless and tapered
- (5) New casting is larger than previous manifolds.

Valve/Spacer: On the passenger side, either a valve (for carbs) or a spacer (for FI) was used, but not both.

Header Pipe: Iron ones had casting numbers and dates.

- (6) During 1956, the flange switched from cast iron 2-bolts to stamped steel 3-bolts when the manifold changed design.
- (7) All pipes were 2 inches diameter, except 1962 FI and large carb were 2.5 inch.

Crossover Pipe:

- (8) Crossover pipes were joined to header pipes by U-bolts; Crossover pipes had "LH" & "RH" marked for passenger cars, but Corvettes reverse them.

Muffler: Part numbers were raised; round mufflers appeared on all 1956-57 models and the 1962 RPO 441 off-road exhaust option.

Tail Pipe: attached to muffler with U-bolt

- (9) 1958-61: rear outlet held in place by tip mounted in the body behind outer edge of tire
- (10) 1962: turned down at rear corners of car



Manifold Casting Numbers & Dates:

1955: The casting numbers are very small and hard to read
The casting number was located on the runner in between
cylinders (5-7 on driver side, 1-3 on passenger side).
Usually, there was no casting date.

1956: cast number is near center; date not visible when installed

1957: casting number is near ends; date not visible when installed

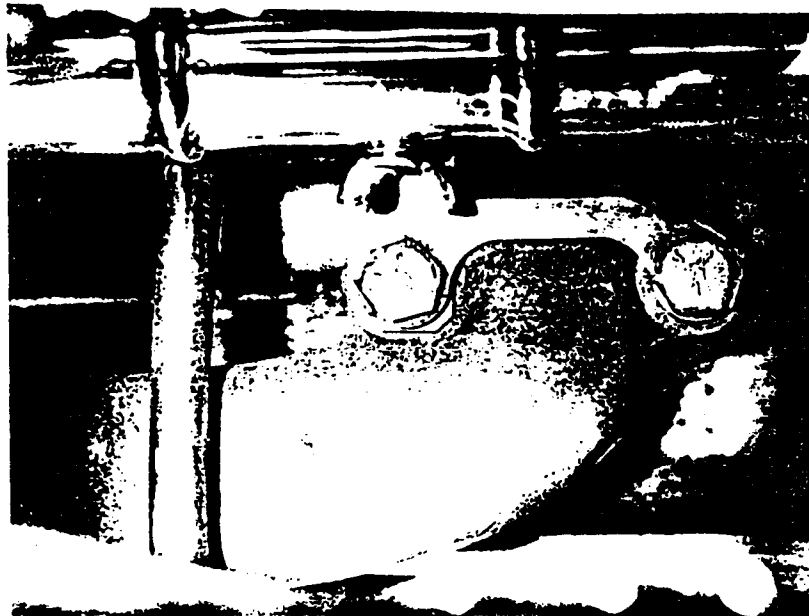
1958-62: manifolds are cast dated month/day, not year; date not
visible when installed

1962: new larger castings do not have casting dates

Finish: Manifolds were painted with the engine; pipes received
black preservative paint; paint burn-off and mild oxidation is
acceptable.

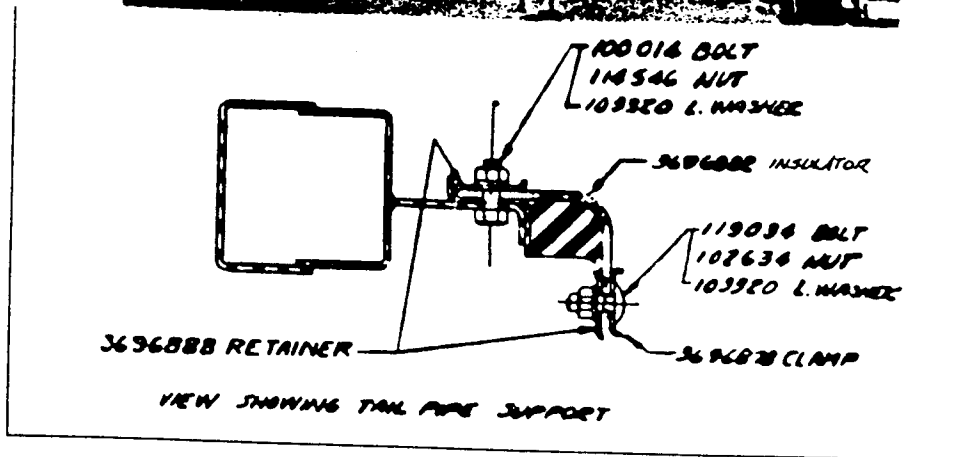
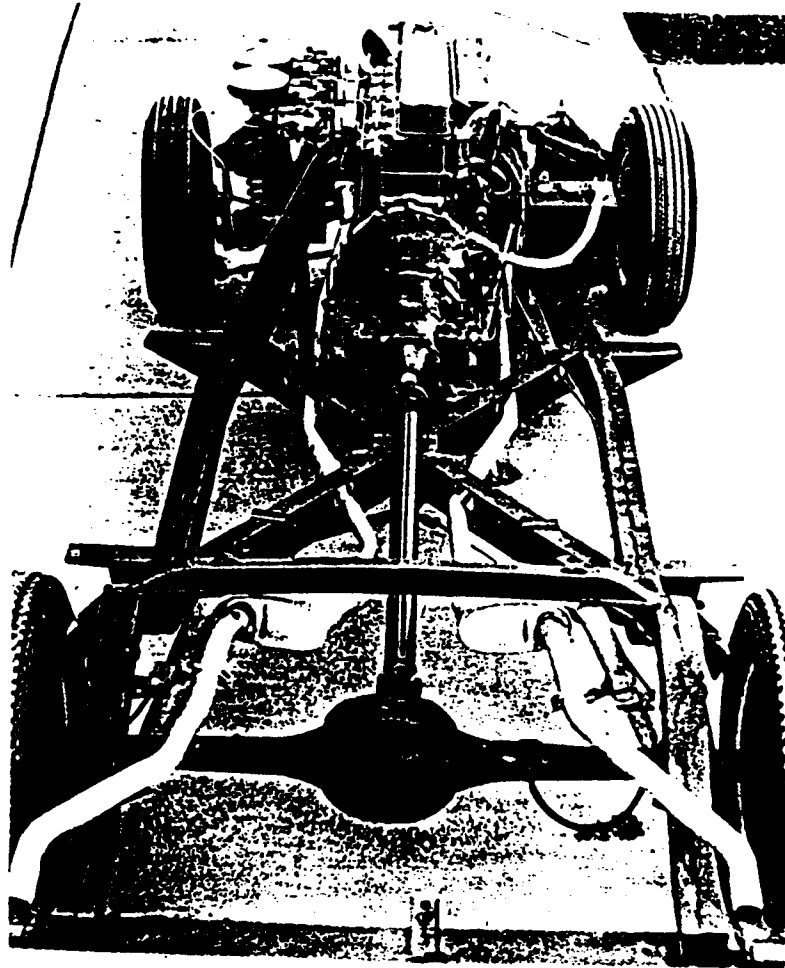
Manifold Bolts: front and rear (but not center) bolts have locks.
The locks were sheet metal straps with holes in ends and ears bent
around the bolt head.

FRENCH
LOCKS



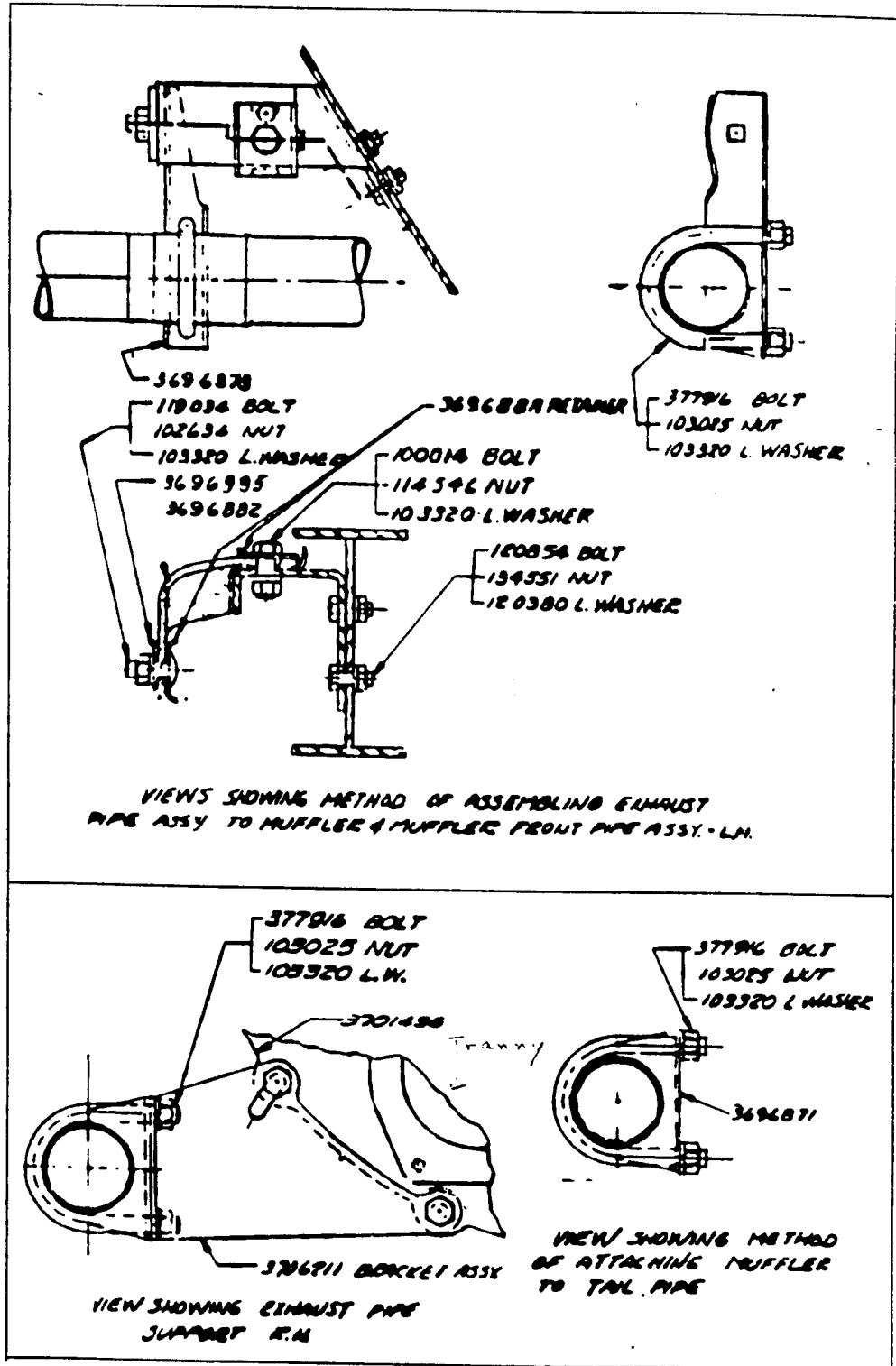
Supports: The exhaust system parts were held in place with U-bolts, clamps, insulators, and brackets. There were six attaching points: two at the frame's X-member, two on the frame near the rear axle, and two near the rear bumper. There were no grounding straps on supports until mid-1955.

EXHAUST
SYSTEM
1953-55



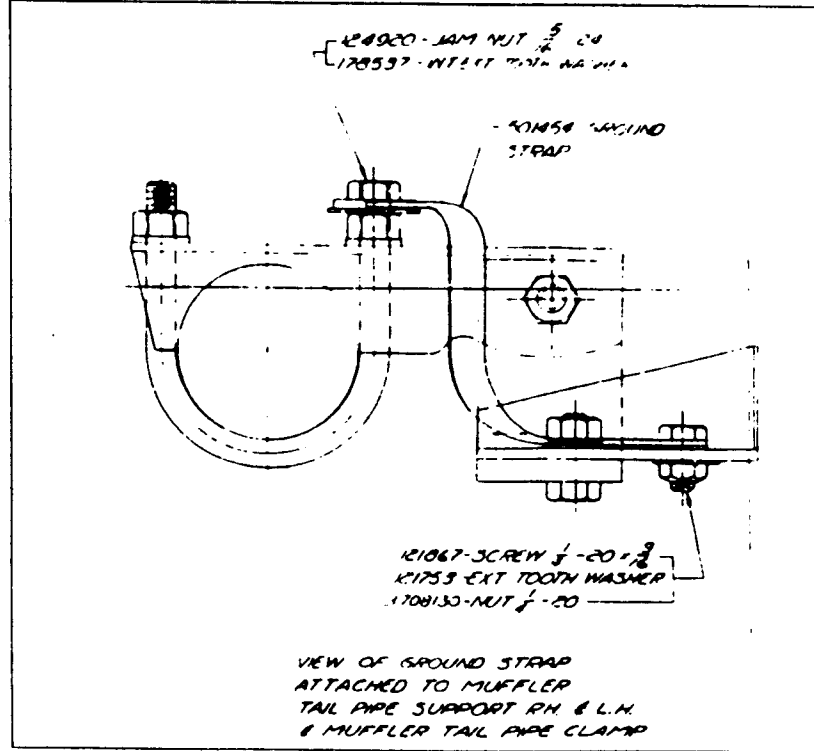
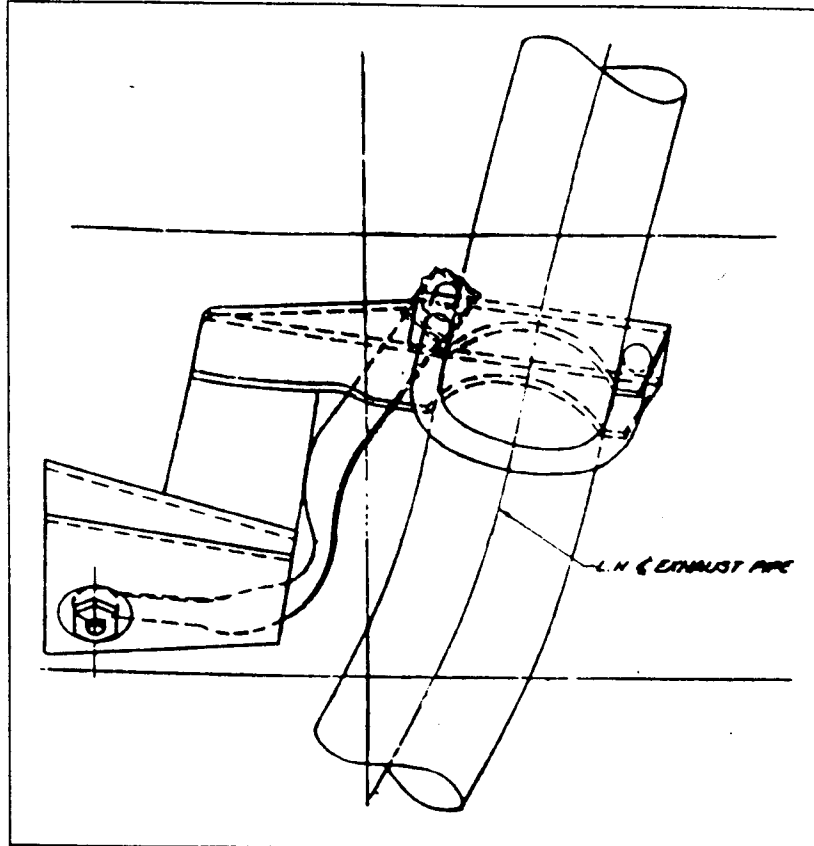
EXHAUST SYSTEM

MUFFLER CONNECTORS & SUPPORTS
1953-55

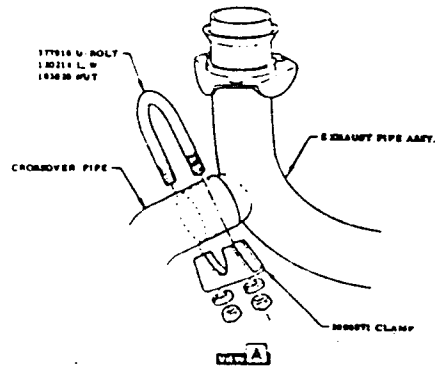
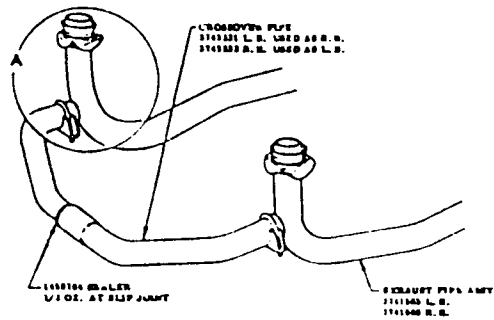


EXHAUST SYSTEM

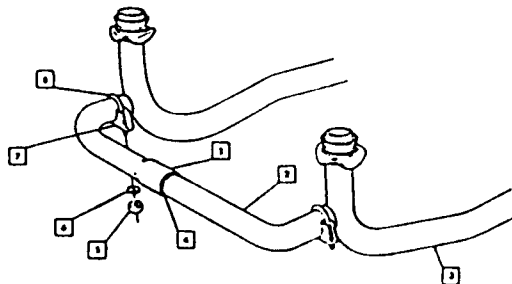
GROUND STRAPS
1953-55



CROSSOVER EXHAUST



1957-61



- 1 370684 CROSSOVER PIPE - L.H. USED AS R.H.
- 2 370683 CROSSOVER PIPE - R.H. USED AS L.H.
- 3 370680-100 L. & R.H. EXHAUST PIPE ASM.
- 4 115176 SEALER 1/2 OZ. @ 2 JOINTS
- 5 10385 NUT
- 6 120710 L. WASHER
- 7 380671 CLAMP
- 8 377916 "U" BOLT
- 9 375372 PLATE - NAME
- 10 375363 NUT

1962

CROSSOVER USAGE

1957-250 HP Fuel Injection w/reg. cam
283 HP Fuel Injection w/hi-lift cam

1958-250 HP Fuel Injection w/reg. cam
270 HP Dual 4-bbl. w/hi-lift cam
290 HP Fuel Injection w/hi-lift cam

1959-250 HP Fuel Injection w/reg. cam
270 HP Dual 4-bbl. w/hi-lift cam
290 HP Fuel Injection w/hi-lift cam

1960-270 HP Dual 4-bbl. w/hi-lift cam
275 HP Fuel Injection w/reg. cam
315 HP Fuel Injection w/hi-lift cam

1961-270 HP Dual 4-bbl. w/hi-lift cam
275 HP Fuel Injection w/reg. cam
315 HP Fuel Injection w/hi-lift cam

1962-300 HP High Performance
340 HP Special High Performance
360 HP Fuel Injection



7. REFERENCES:

Adams: 1953-55 pages 47-8, 61, 72-3, 82,
 1956-57 pages 127, 131-2, 134, 184-5,
 1958-60 pages 230, 234, 239-40, 274, 292-3,
 1961-62 pages 329, 332-3, 336-7, 365, 381, 384-5

GM Assy Manual	1956-57	Sect 6	Sheet 4.00
		Sect 8	Sheet 1.00
		RPO 579	Sheet 5.00
1958-60	Sect 6	Sheet 2.00	
	Sect 8	Sheet 3.00	
	RPO 469	Sheet 1.00	
	RPO 579	Sheet 6.00	
1961	Sect 6	Sheet 2.00	
	Sect 8	Sheet 2.00	
	RPO 468/469	Sheet 1.00	
	RPO 579/582	Sheet 6.00	
1962	Sect 6	Sheet 6.00	
	Sect 8	Sheet 4.00	
	Sect 396/583	Sheet 2.00	
	Sect 582	Sheet 2.00	

NCRS Specifications 1953-72, page 68
 NCRS Judging Manual 1953-55, pages 28-9
 1956-57, pages 30-1
 1958-60, page 24
 1961-62, pages 18-9

Straight Talk Vol 1-1, page 8
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 Vol 3-2, page 16

