

## DIFFERENTIAL

### GENERAL DESCRIPTION

A Salisbury-type solid rear axle and fifty six inch long single leaf springs (Fig. 4B-1) form a simple and efficient Hotchkiss drive system and rear suspension design, providing excellent ride and stability characteristics.

Radius rods, extending from provisions on the rear axle housing and on the underbody, restrict rear axle wind-up. Mounting provisions are on all bodies and all axles.

### AXLE RATIOS - STANDARD AND LOCKING DIFFERENTIALS

Eight different axle ratios are available for the Firebird models. They can be identified by the two-letter code stamped on the rear of the L.H. axle tube.

Three differential cases, differing in ring gear mounting dimensions, are used on the 1967 standard differential Firebird models: one for the 2.56 axle ratio, one for the 2.78, 2.93 and 3.08 ratios, and one for the 3.23, 3.36 and 3.55 ratios (Fig. 4B-2).

Three differential cases are used on the 1967 locking differential Firebird models: one for the 2.56 and 2.78 axle ratios, one for the 2.93, 3.08 and 3.23 ratios, and one for the 3.36, 3.55 and 3.90 ratios.

### SERVICE PROCEDURES

When removing the axle assembly, it is necessary to remove the muffler, leaf springs and radius rods (if used). Otherwise, service procedures for stand-

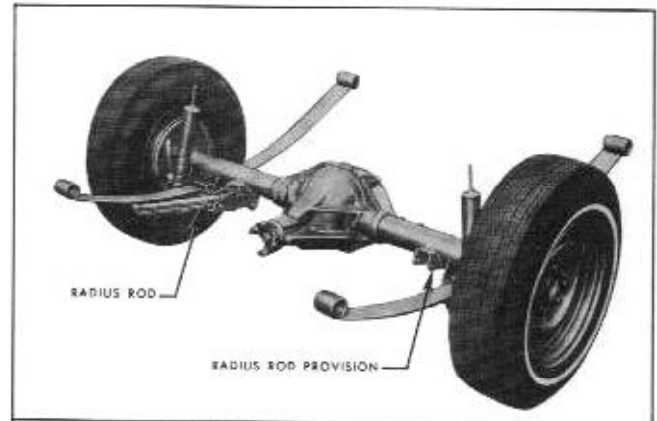


Fig. 4B-1 Rear Suspension

ard and locking differentials of the 1967 Firebird models are the same as those for the Tempest, as shown in the Differential section of the 1967 Pontiac Service Manual.

### LUBRICATION

Rear axle capacity for Firebird models is three pints of multi-purpose Hypoid Gear Lubricant.

REAR AXLE GEAR		ENGINE						TRANSMISSION				RATIO RELEASE			AIR COND.		AXLE CODE	
Comb.	Ratio	6 Cyl. 1 Bbl.	6 Cyl. 4 Bbl.	326 2 Bbl.	326 4 Bbl. HO	400 4 Bbl.	400 4 Bbl. Ram Air	3 Spd. Man.	4 Spd. Man.	Air Cool. Auto.	Water Cool. Auto.	Econ.	Std.	Perf.	With-out	With	Std.	Lock.
41:16	2.56	X		X						X	X		X		X		X	UN
39:14	2.78		X							X		X			X	X	X	UP
41:14	2.93	X		X						X	X			X	X		X	UR
40:13	3.08	X		X		X		X	X		X	X		X	X		X	US
42:13	3.23	X	X		X			X	X	X		X			X		X	UT
			X	X		X		X	X		X			X	X		X	
37:11	3.36	X			X			X	X				X		X	X	X	UV
39:11	3.55		X			X		X	X				X		X	X	X	UW
39:10	3.90		X				X	X		X			X		X			UX

Fig. 4B-2 Rear Axle Usage Chart