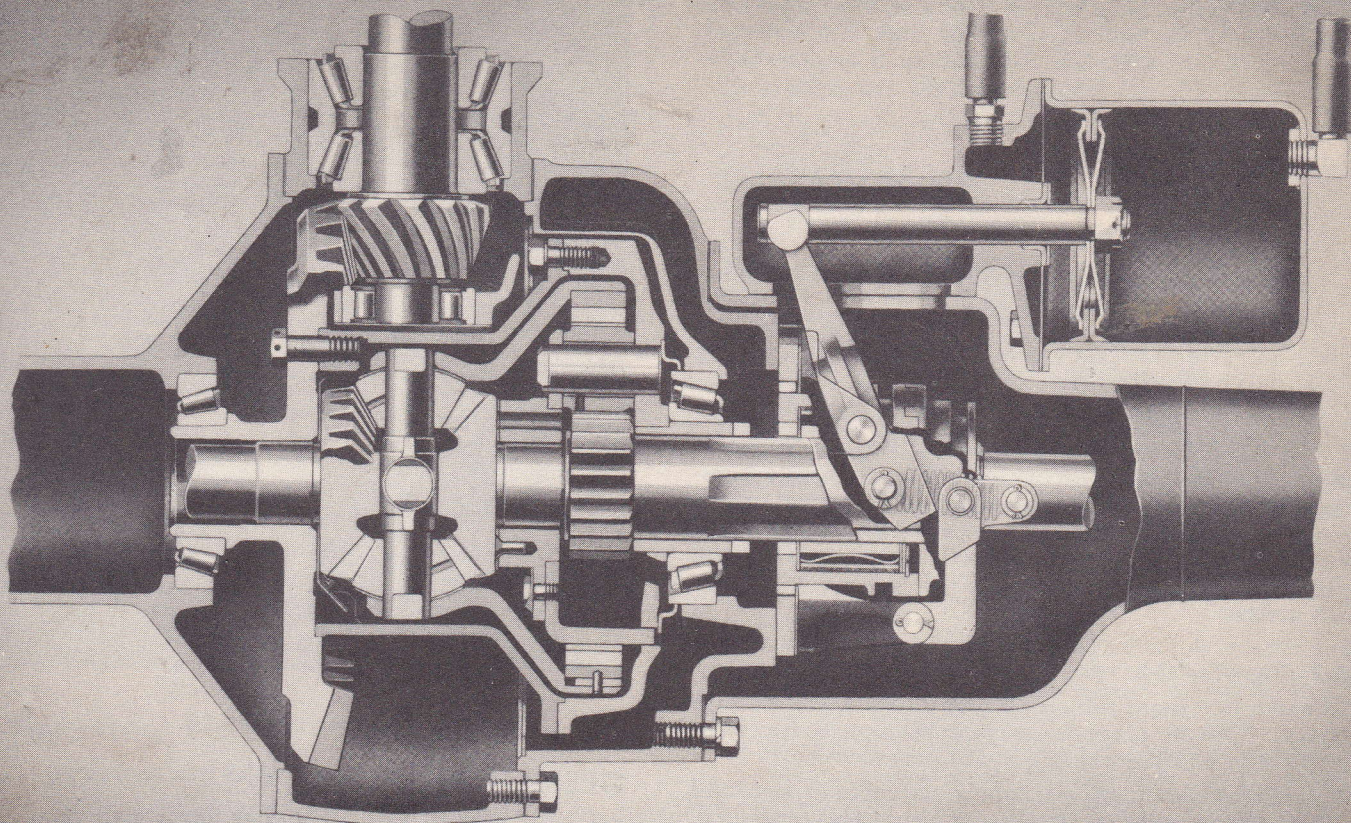


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INSTALLATION INSTRUCTIONS

LITHO IN U. S. A.



Cross Section View

Installation of Columbia Overdrive does not change important assembly limits of original axle.

Materials used in the manufacture of Columbia Overdrive are to the latest standards of best engineering practice.

The following original parts are used in making a Columbia Overdrive installation:

RING AND PINION GEARS.
DIFFERENTIAL SPIDER GEARS.
AXLE SHAFTS.

Original assembly and setting of pinion bearings and pinion gears are NEVER DISTURBED.

NOTE: We recommend dipping ends of all vacuum hose in gasoline for ease of assembly over copper tubes. **DO NOT USE OIL OR GREASE**, as it causes rubber to deteriorate.

OPERATION NO. 7

Assembly of Valve and Connecting Parts

(Use Sub-Assembly 66083) Refer to Diagram—also Illustrations Nos. 5 and 6.

Attach valve and bracket assembly to engine head, using 3 stud nuts as shown.

Attach clutch pedal lever (D) to hub of clutch pedal. Locate over grease fitting and secure with "U" bolt.

Connect control rod (E) from lever (D) to switch operating slide (F). Adjust clevis on rod (E) so that switch operating slide (F) depresses switch plunger (G) until slide (F) stops against base of switch with clutch pedal fully depressed to the floor. **NOTE:** Lock clevis pins with cotters.

If necessary, re-form engine oil level gage to clear switch operating slide (F).

Connect the 2 front rubber vacuum hoses to valve; hose marked (O) on diagram to port (O) on valve; hose marked (S) on diagram to port (S) on valve.

Replace windshield wiper silencer assembly in manifold with new manifold vacuum take-off fitting (H) furnished.

NOTE: MAKE CERTAIN that the distributor vacuum tube connector and the 2 sealing washers are properly installed on new fitting.

Connect valve to manifold fitting with vacuum hose (J).

Connect windshield wiper hose to "Tee" in vacuum hose (J).

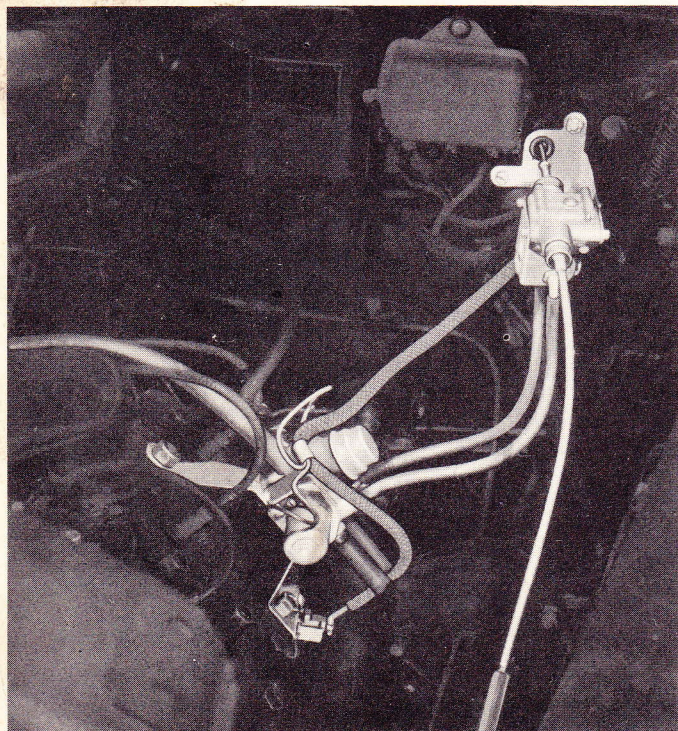


Illustration No. 5

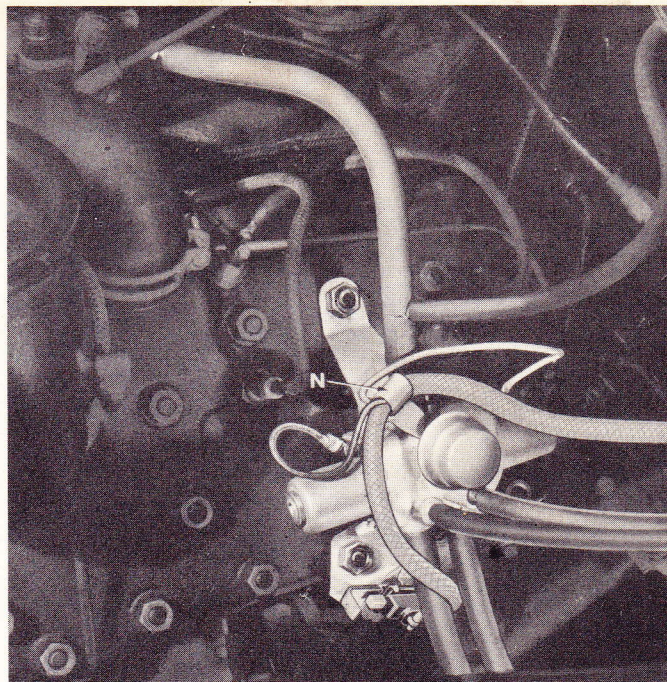


Illustration No. 6

OPERATION NO. 8

Assembly of Selector Switch and Wiring Harness (Use Sub-Assembly 66085)

Refer to Diagram—also Illustrations Nos. 5 and 6.

Drill $\frac{1}{2}$ " diameter hole for the overdrive selector switch through instrument panel, midway between light switch and throttle control, and $\frac{7}{8}$ " up from lower edge of panel. Use care not to mar finish on panel when drilling and removing burrs from hole. (Suggestion—use $\frac{1}{2}$ " diameter four-lip counterbore with small drill as pilot.)

With inner nut in place on switch, insert switch through hole in panel with normal position of switch lever pointing "up." Assemble bezel over stem of switch, and secure in place with outer nut and lock washer.

With wire terminal cover on dash removed, insert the new wiring harness through the standard wiring harness grommet forward to engine compartment.

Connect RED wire to "cold" terminal of ignition switch and other end of red wire to either terminal of clutch pedal switch.

Connect BLACK wire to the other terminal on clutch pedal switch.

Connect GREEN wire to terminal marked (O) on valve.

Connect YELLOW wire to terminal marked (S) on valve.

Fasten wiring harness to clip on valve air cleaner. See letter (N) illustration No. 6.

OPERATION NO. 9

Speedometer Adapter and Cable Assembly (Use Sub-Assembly 66084)

Refer to Diagram—also Illustrations Nos. 5 and 6.

Temporarily locate the speedometer adapter bracket by the upper terminal cover screw and under nut of hand brake retaining screw on dash.

Scribe location of new speedometer cable hole on dash, using bracket as a template. Remove bracket and drill a $\frac{13}{16}$ " diameter hole through dash.

Attach speedometer adapter and bracket assembly under terminal cover with 2 self-tapping screws and hand brake retaining nut.

Disconnect standard speedometer cable (K) from speedometer head and withdraw into engine compartment. Pass cable through hole in frame X-member as shown, and up between horn bracket and horns, and attach to speedometer adapter (M).

Insert new short cable (L) through new hole in dash and attach to speedometer adapter (M) and speedometer head. Insert grommet into hole over cable.

CAUTION: When handling cables, avoid all sharp kinks or short bends.

Connect 2 small vacuum hoses from valve to speedometer adapter (M)—the long hose to port marked (S) on valve and inner connection on speedometer adapter marked (S) on diagram. The short hose to ports marked (O) and (O).

MAKE CERTAIN that small hose connections are tight by assembling hose over copper tubes for a distance of approximately $\frac{3}{4}$ ".

OPERATION NO. 10

Lubrication Instructions

With rear wheels off floor, **BE SURE** to fill axle with $4\frac{1}{2}$ pints of mild E.P. Rear Axle Lubricant. **USE** new oil level hole in overdrive axle. **DO NOT USE FORD OIL LEVEL.** For Summer, use S.A.E. 140. For Winter, use S.A.E. 90 as recommended by car manufacturer for standard axle.

RECHECK ALL HOUSING TO CENTER MEMBER CAP SCREWS TO MAKE SURE THEY ARE DRAWN TIGHT.

To be assured that all **OVERDRIVE PARTS** as well as **STANDARD GEAR PARTS AND BEARINGS** are properly lubricated by circulation of oil throughout the entire axle before going into service, it is of the **UTMOST IMPORTANCE** that the following instructions be carefully carried out—Start motor, shift transmission into high gear and run for five minutes in this position. Now,

with all wheels on floor, **BE SURE** to **CHECK** oil level at **NEW OIL LEVEL HOLE** and add lubricant if necessary.

CAUTION: DO NOT USE FORD OIL LEVEL.

OPERATION NO. 11

Final Inspection

With rear wheels off floor, start engine, shift transmission into high gear and set hand throttle so that the speedometer registers approximately 20 miles per hour. Now, without changing engine speed, shift into overdrive by depressing (and holding in the down position) overdrive selector, and depressing the clutch pedal until the control switch makes initial contact. This will be made evident by a click in the solenoid valve simultaneously with a click in the rear axle. At the same time the speedometer will change to register approximately 27 miles per hour. All this should occur when clutch pedal is approximately $1\frac{1}{2}$ " from floor.

If the above results are not obtained, check carefully as follows:

1. Check adjustment of clutch pedal switch. This clutch pedal switch completes the circuit through the selector switch to energize either solenoid on the valve. The clutch pedal switch is normally open, and closes the circuit when slide (F) depresses plunger (G) approximately $\frac{1}{8}$ " (at this point, the clutch pedal should be approximately $1\frac{1}{2}$ " from floor) and it remains closed for the balance of the plunger travel and its return.

The selector switch is a single-pole, double-circuit, automatic return type. One circuit is normally closed, the opposite circuit is momentarily closed when selector is depressed.

The lead (yellow wire) from the normally closed position should connect to the standard ratio solenoid terminal (S) on valve. The other lead (green wire) connects to the overdrive solenoid terminal (O) on valve. The center lead (black wire) supplies current to either circuit from the pedal switch.

2. Check all wiring and vacuum lines as previously outlined in Installation Instructions and make any necessary corrections.
3. **NOTE:** All vacuum tubes and rubber couplings have a certain inside diameter which should be maintained for correct air passage. Therefore, check for possible obstruction on inside, such as sharp bends, flat spots, kinks, also cut or torn rubber inside of rubber connections caused from assembling over tubes. Correct where necessary.

HOW TO SHIFT OVERDRIVE AXLE

The shift to either *Overdrive* or *Standard* ratio is **SEMI-AUTOMATIC**. It is electrically controlled and can be made at the will of the driver, at any car speed.

TO SHIFT TO OVERDRIVE

Depress **OVERDRIVE** selector, and holding it in this position, release pressure on accelerator and fully depress clutch pedal. Allow clutch to re-engage gradually and smoothly, then release selector.

TO SHIFT TO STANDARD RATIO

The shift is **AUTOMATICALLY** selected, and completed by merely depressing clutch pedal to floor,

and allowing clutch to re-engage gradually and smoothly.

NOTE: Before coming to a complete stop, when in overdrive ratio, depress clutch pedal to floor to ensure a complete engagement of the axle into the standard axle ratio.

The shift to either **OVERDRIVE** or **STANDARD** ratio should always be made while car is in motion. If a shift is attempted when car is *not* in motion, the shifting clutch in the axle may not engage, resulting in a ratcheting noise when the engine clutch is engaged. To engage the axle, shift transmission into reverse gear and partially re-engage engine clutch.

PARTS LIST

OF

COLUMBIA OVERDRIVE

The
COLUMBIA *Skyway* **DRIVE**
LIKE RIDING ON A CLOUD

FOR

**FORD V-8 • MERCURY 8
LINCOLN-ZEPHYR V-12**

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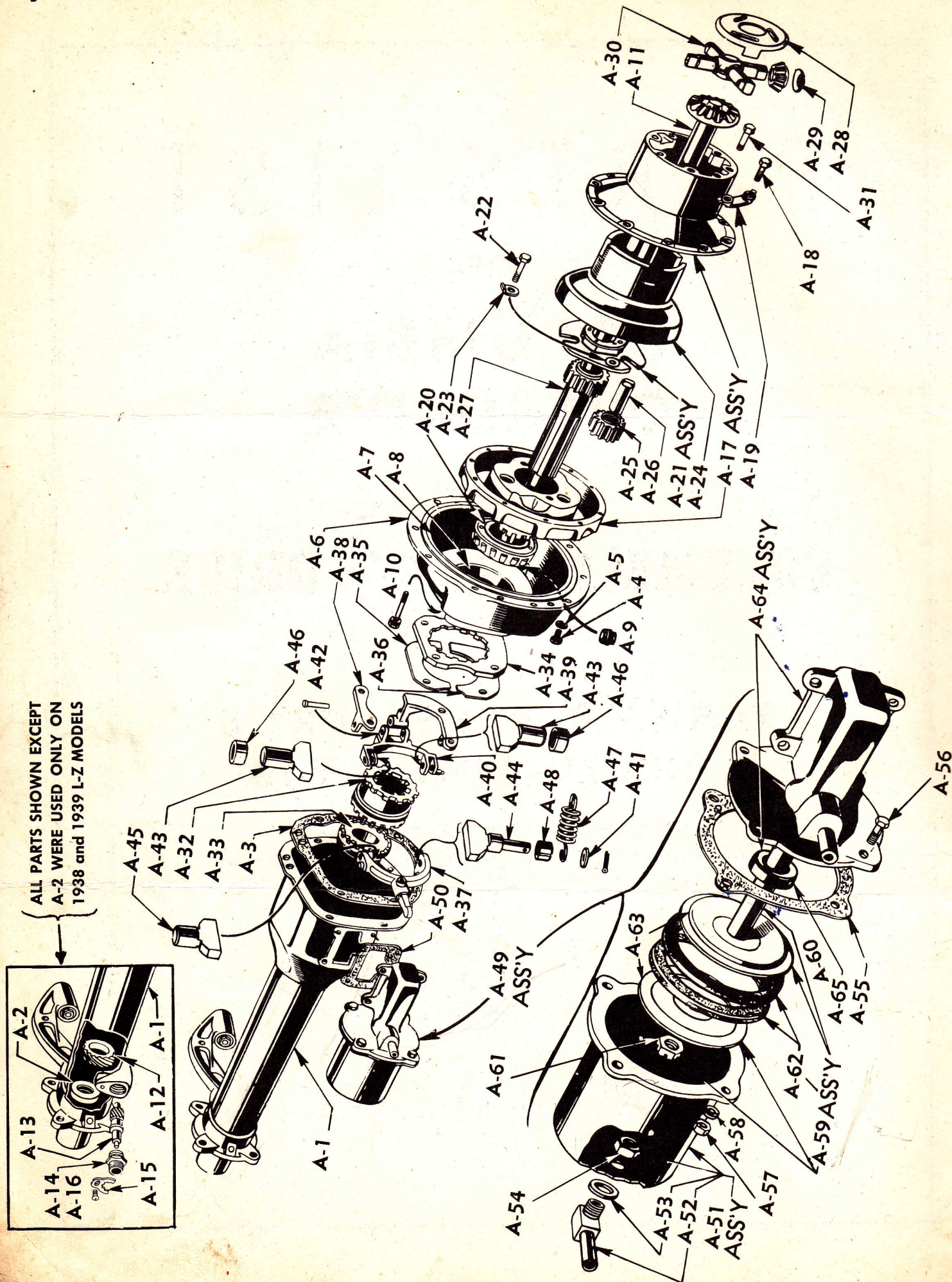
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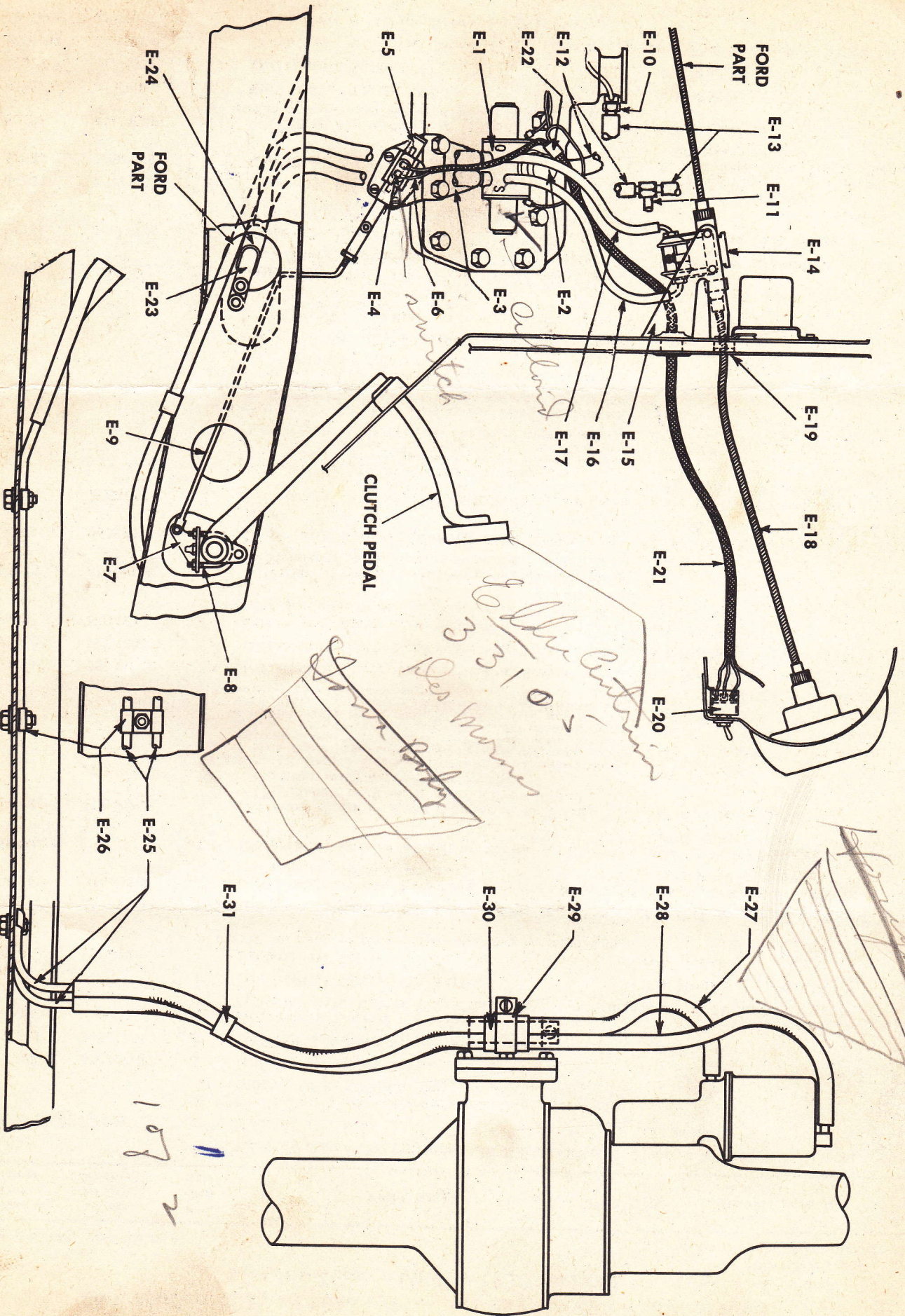
TRUCKSTELL

SPECIALIZED EQUIPMENT FOR PLUS PERFORMANCE

Union Commerce Building - Cleveland, Ohio



Identification Symbols only shown on illustration. Order by part number and name shown in list of parts.



Identification Symbols only shown on illustration. Order by part number and name shown in list of parts.

COLUMBIA OVERDRIVE AXLE SERVICE PARTS LIST COVERING

Ford Models 1935 to 1946

Mercury Models 1939 to 1946

Lincoln-Zephyr Models 1936 to 1941

F—Ford
M—Mercury
LZ—Lincoln-Zephyr

NOTE: 1935 and 1936 Ford Identical

Identifi- cation Symbol	Columbia Part Number	Lincoln Part Number	Req. Per Axle	PART NAME	MODELS USED ON
A-1	66001		1	Housing Assembly (Includes Oil Seal 63224)	1946 F-M
A-2	63224	B4245	1	Housing Oil Seal	All Models
A-3				NOTE: Use of Gasket discontinued. Use a Gasket Compound such as Tight Seal or Permatex.	
A-4	SZ6088	350589-S7	9	Housing Attaching Screw	All Models
A-5	103321	34807-S7	9	Housing Attaching Screw Lock Washer 3/8"	All Models
A-6	64447		1	Differential Carrier Assembly (Includes Oil Baffle, Brg. Cup & Oil Level Plug)	All F & M Models
A-7	63392		1	Differential Carrier Oil Baffle	All Models
A-8	#363	HB4220	1	Differential Carrier Bearing Cup	All Models
				NOTE: 363 Cup and 368 Cone should always be replaced in sets.	
A-9	112715	353053-S	1	Differential Carrier Oil Level Plug—1/2" x 14"	All F & M Models; 1936-37-38 LZ
A-10	64129	350592-S	1	Differential Carrier Attaching Screw Assembly (Includes WZ6028 Washer)	1938-39-40-41-46 F; 1939-40-41-46 M; 1938-39-40-41 LZ
	WZ6028		1	Differential Carrier Attaching Screw Washer	1938-39-40-41-46 F; 1939-40-41-46 M; 1938-39-40-41 LZ
A-17	63978	HB4026	1	Differential Outer Case Assembly—8 Tooth (Furnished only with both halves bolted together with screws and locks.)	All Models (See Note)
				NOTE: On 1935-6 and early 1937 Ford and LZ models where 10 tooth Outer Cases were originally used—for replacement purposes, above 8 tooth case with 1 Part 64830 Synchro Clutch, 1 Part 64828 Stationary Clutch, 1 Part 63875 Support Hub Assembly, 2 Part SZ-6116 Screws, and 2 Part 63874 Locks MUST BE FURNISHED AND INSTALLED in order to effect interchangeability.	
A-18	SZ6111	350397-S	10	Differential Outer Case Attaching Screw	All Models
A-19	63413	HB4033	5	Differential Outer Case Attaching Screw Lock	All Models
A-20	#368	HB4220	1	Differential Outer Case Bearing Cone	All Models
				NOTE: 368 Cone and 363 Cup should always be replaced in sets.	
A-21	63875	86H4037	1	Differential Support Hub and Washer Assembly (Furnished only as an assembly)	All Models
A-22	SZ6116	350399-S	2	Differential Support Hub Attaching Screw	Late 1937-38-39-40-41-46 F; 1939-40-41-46 M; 1937-38-39-40-41 LZ
A-23	63874	HB4042	2	Differential Support Hub Attaching Screw Lock	Late 1937-38-39-40-41-46 F; 1939-40-41-46 M; 1937-38-39-40-41 LZ
				NOTE: CHANGE ON PLANETARY GEARS Early in 1937 a change was made in the number of teeth on the Sun Gear from 17 to 15; on the Internal Gear from 43 to 39; and on the Planetary Pinion from 13 to 12. IMPORTANT: The above gears as now being furnished will not interchange with those in 1935-6 and early 1937 models. When replacement of any of these parts for the above models are required, it is NECESSARY to replace all with the following new parts. 1 - Part No. 64004 Differential Case and Internal Gear Assembly 1 - Part No. 63983 Sun Gear 3 - Part No. 64213 Planetary Pinion 3 - Part No. 64501 Planetary Pinion Shaft	
A-24	64004	HB4027	1	Differential Case and Internal Gear Assembly— 39 Teeth (Furnished only as an assembly)	All Models (See Note above)
A-25	64213	86H4028	3	Planetary Pinion—12 Teeth	All Models (See Note above)
				NOTE: Pinions and Shafts must be replaced only in sets of 3.	
A-26	64501	86H4029	3	Planetary Pinion Shaft	All Models
A-27	63983	HB4055	1	Sun Gear—15 Teeth	All Models (See Note Change on Planetary Gears)
A-28	63391	86H4059	1	Side Gear Thrust Washer—Left	All Models
				NOTE: Washers 63391 and 63232 should be replaced in sets.	
A-29	63232	86H4060	4	Side Pinion Thrust Washer	All Models
A-30	61923	HB4211	1	Differential Spider	All Models
A-31	SZ6102	350385-S	8	Drive Gear Attaching Screw	All F & M Models; 1936-37 LZ
	18 Ga	HB4032	1	Drive Gear Attaching Screw Lock Wire— Approx. 20" long	All Models

COLUMBIA OVERDRIVE AXLE SERVICE PARTS LIST COVERING

Ford Models 1935 to 1946
Mercury Models 1939 to 1946
Lincoln-Zephyr Models 1936 to 1941

F—Ford
M—Mercury
LZ—Lincoln-Zephyr

NOTE: 1935 and 1936 Ford identical

Identifi- cation	Columbia Part Number	Lincoln Part Number	Req. Per Axle	PART NAME	MODELS USED ON
A-32	64830	HB4041	1	Synchro Clutch Assembly (Furnished only as an Assembly)	All Models (See Note)
				NOTE: When replacing Synchro or Stationary Clutch on all models prior to 1946, current parts 64830 Synchro Clutch and 64828 Stationary Clutch will be furnished AND MUST BE INSTALLED IN PAIRS, otherwise (due to a change in teeth) they are not interchangeable.	
				When replacing above clutches on 1935-6 and early 1937 Ford and LZ models, the old Differential Outer Case having 10 teeth MUST also be replaced with a CURRENT 8 tooth case Part No. 63978.	
A-33	63193	HB4054	1	Drive Clutch	All Models
A-34	64828	HB4040	1	Stationary Clutch	All Models (See Note under Synchro Clutch)
SZ6099	350586S		4	Stationary Clutch Attaching Screw	All Models
	103321	34807-S7	4	Stationary Clutch Attaching Screw Lock Washer 3/8"	All Models
A-35	63394	HB4056	1	Oil Bathie—Upper	All Models
A-36	63395	HB4057	1	Oil Bathie—Lower	All Models
A-37	63927	96H4050	1	Shifter Yoke	All Models
A-38	63396	HB4048	1	Shifter Yoke Bracket—Upper	All Models
A-39	63397	HB4049	1	Shifter Yoke Bracket—Lower	All Models
A-40	63398	HB4047	1	Drive Clutch Yoke	All Models
A-41	WZ6019	HB4098	1	Shifter Yoke Shoe Washer	All Models
A-41	WZ6019	HB4098	1	Shifter Yoke Return Spring Washer	All Models
A-42	66043	73985-S	1	Drive Clutch Yoke Pin 1 1/8" x 1 1/8"	All Models
A-43	63205	HB4051	2	Drive Clutch Yoke Shoe	All Models
A-44	63204	HB4052	1	Shifter Yoke Shoe—Long	All Models
A-45	63402	HB4053	1	Shifter Yoke Shoe—Short	All Models
A-46	60906	HB4058	2	Shifter Yoke Shoe Roller	All Models
A-47	63401	HB4102	1	Return Spring	All Models
A-48	61795	HB4103	1	Return Spring Spacer	All Models
A-49	63926	HB4062	1	Vacuum Cylinder and Base Assembly (Includes A-51 to A-65)	All Models (See Note)
				NOTE: For replacements on 1935 and 1936 Ford, also 1936 LZ, due to a change in design, the above current part 63926 with 1 current part 63927 Shifter Yoke Assembly MUST be furnished to effect interchangeability.	
A-50	63412	HB4066	1	Vacuum Cylinder Base Gasket	All Models
A-51	63715	HB4064	1	Vacuum Cylinder Assembly (Includes next 3 items)	All Models
A-52	66044	HB4074	1	Vacuum Cylinder Hose Elbow	All Models
A-53	66046	HB4075	1	Vacuum Cylinder Hose Elbow Gasket	All Models
A-54	117051	HB4073	1	Vacuum Cylinder Hose Elbow Nut 1/2" x 20 x 1 1/8"	All Models
A-55	63282	HB4073	1	Vacuum Cylinder Gasket	All Models
A-56	100013	20047-S7	4	Vacuum Cylinder Attaching Screw 1/8" x 24 x 3/4"	All Models
A-57	117048	33784-S7	4	Vacuum Cylinder Attaching Screw Nut 1/8" x 24	All Models
A-58	103320	34806-S7	4	Vacuum Cylinder Attaching Screw Nut Lock Washer 1/8"	All Models
A-59	63925	HB4068	1	Vacuum Cylinder Piston Assembly (Includes next 5 items)	All Models
A-60	63924		1	Vacuum Cylinder Piston Rod	All Models
A-61	117051	33929-S7	1	Vacuum Cylinder Piston Rod Nut 1/2" x 20	All Models
A-62	61937	HB4069	2	Vacuum Cylinder Piston Leather	All Models
A-63	61938	HB4070	2	Vacuum Cylinder Piston Leather Backing Plate	All Models
A-64	63966	HB4065	1	Vacuum Cylinder Piston Leather Oil Felt	All Models
A-65	63719	HB4072	1	Piston Rod Oil Seal under 63926)	All Models
				Oil Seal) (For 1935 and 1936 models see Note 1937-38-39-40-41-46 F; 1939-40-41-46 M; 1937-38-39-40-41 LZ	
SZ6098	350398-S		4	Vacuum Cylinder Base Attaching Screw	All Models
	103320	34806-S7	4	Vacuum Cylinder Base Attaching Screw Lock Washer—1/8" Med.	All Models

NOTE: When replacing Synchro or Stationary Clutch on all models prior to 1946, current parts 64830 Synchro Clutch and 64828 Stationary Clutch will be furnished AND MUST BE INSTALLED IN PAIRS, otherwise (due to a change in teeth) they are not interchangeable.

NOTE: When replacing above clutches on 1935-6 and early 1937 Ford and LZ models, the old Differential Outer Case having 10 teeth MUST also be replaced with a CURRENT 8 tooth case Part No. 63978.

MODELS USED ON

LZ—Lincoln-Zephyr

M—Mercury

F—Ford

COLUMBIA OVERDRIVE AXLE SERVICE PARTS LIST COVERING Ford and Mercury Models - 1946

NOTE: *Items also used on Ford Models 1937 to 1941 Incl. Mercury Models 1939 to 1941 Incl.

F—Ford
M—Mercury

Identifi- cation Symbol	Columbia Part Number	Req. Per Axle	PART NAME	MODELS USED ON
E-1	66020	1	Valve Assembly (Furnished only as an assembly)	1946 F-M
E-2	66045	1	Air Cleaner	1946 F-M
E-3	66019	1	Valve Bracket	1946 F-M
	132255	3	Valve to Bracket Attaching Screw— $\frac{1}{4}$ "-20 x $\frac{1}{2}$ "	1946 F-M
	103319	3	Valve to Bracket Attaching Screw—Lock Washer $\frac{1}{4}$ " Std.	1946 F-M
E-4	66053	1	Clutch Pedal Switch	1946 F-M
E-5	66056	1	Clutch Pedal Switch Operating Slide	1946 F-M
E-6	66057	1	Clutch Pedal Switch Operating Slide Guide	1946 F-M
	120216	4	Clutch Pedal Switch Attaching Screw 10-32 x $\frac{1}{2}$ "	1946 F-M
	120614	4	Clutch Pedal Switch Attaching Screw Nut 10-32 Hex.	1946 F-M
	106497	4	Clutch Pedal Switch Attaching Screw Nut Lock Washer #10 Std.	1946 F-M
E-7	66014	1	Clutch Pedal Lever	1946 F-M
E-8	66016	1	Clutch Pedal Lever U Bolt	1946 F-M
	120361	2	Clutch Pedal Lever U Bolt Nut—10-24 Hex. Hd.	1946 F-M
	106497	2	Clutch Pedal Lever U Bolt Nut Lock Washer— #10 Std.	1946 F-M
E-9	66015	1	Pedal Switch Operating Rod & Clevis Assembly (Includes next 3 items)	1946 F-M
	66013	1	Pedal Switch Operating Rod	1946 F-M
	*63581	1	Pedal Switch operating Rod Clevis	1946 F-M
	*120614	1	Pedal Switch Operating Rod Clevis Lock Nut— #10-32 Std.	1937-38-39-40-41-46 F; 1939-40-41-46M
	*PZ6038	2	Pedal Switch Operating Rod Clevis Pin— $\frac{1}{8}$ " x $\frac{1}{2}$ "	1937-38-39-40-41-46 F; 1939-40-41-46M
	103361	2	Pedal Switch Operating Rod Clevis Pin Cotter— $\frac{1}{8}$ " x $\frac{1}{2}$ "	1937-38-39-40-41-46 F; 1939-40-41-46M
E-10	66042	1	Manifold Vacuum Take-off Fitting	1946 F-M
E-11	66058	1	Windshield Wiper Tee	1946 F-M
E-12	66059	1	Manifold Intake Hose—Short— $\frac{5}{16}$ " ID x $2\frac{1}{2}$ " long	1946 F-M
E-13	66060	1	Manifold Intake Hose—Long— $\frac{5}{16}$ " ID x 8" long	1946 F-M
E-14	66011	1	Speedometer Adapter Assembly (Furnished only as an assembly)	1946 F-M
E-15	66061	1	Speedometer Adapter Bracket	1946 F-M
	132033	2	Speedometer Adapter Attaching Screw— #10-24 x $\frac{3}{8}$ "	1946 F-M
	120217	2	Speedometer Adapter Attaching Screw Lock Washer #10 Std.	1946 F-M
	SZ 6180	2	Speedometer Adapter Bracket Attaching Screw P. K. Type A #14 x $\frac{3}{4}$ " long	1946 F-M
E-16	66062	1	Speedometer Adapter Vacuum Hose Long $\frac{3}{16}$ " ID x 13" long	1946 F-M
E-17	66073	1	Speedometer Adapter Vacuum Hose Short $\frac{3}{16}$ " ID x 11" long	1946 F-M
E-18	66018	1	Speedometer Cable Assembly 23" long (Includes Core 66066)	1946 F-M
	66066	1	Speedometer Cable Core	1946 F-M
E-19	64814	1	Speedometer Cable Grommet	1946 F-M
E-20	66055	1	Selector Switch Assembly (Includes next 5 items)	1946 F-M
	66063	1	Selector Switch	1946 F-M
	NZ6050	2	Selector Switch Nut	1946 F-M
	WZ-6100	1	Selector Switch Nut Lock Washer	1946 F-M
	66065	1	Selector Switch Bezel	1946 F-M
	66070	1	Selector Switch Insulator	1946 F-M
E-21	66067	1	Wiring Harness	1946 F-M
E-22	66087	1	Wiring Harness Clip	1946 F-M
E-23	66074	2	Coupling Hose—Valve to Vacuum Tube— $\frac{5}{16}$ " ID x 24" long	1946 F-M
E-24	66078	2	Front Coupling Hose Conduit— $2\frac{1}{2}$ " long	1946 F-M
E-25	66072	2	Vacuum Tube—80" long	1946 F-M
E-26	66017	3	Vacuum Tube Clip	1946 F-M
	121661	3	Vacuum Tube Clip Screw— $\frac{5}{16}$ "-24 x 1" long	1946 F-M
	120387	3	Vacuum Tube Clip Screw Plain Washer $\frac{7}{8}$ x $\frac{3}{4}$ x $\frac{1}{16}$ "	1946 F-M
	121917	3	Vacuum Tube Clip Screw Nut— $\frac{5}{16}$ "-24 Hex. Head	1946 F-M
	103320	3	Vacuum Tube Clip Screw Nut Lock Washer— $\frac{5}{16}$ " Std.	1946 F-M
E-27	66076	1	Rear Coupling Hose—Short— $\frac{5}{16}$ " ID x 34" long	1946 F-M
E-28	66077	1	Rear Coupling Hose—Long— $\frac{5}{16}$ " ID x 39" long	1946 F-M
E-29	66080	1	Rear Coupling Hose Clip Assembly (Includes next 5 items)	1946 F-M
	66091	1	Rear Coupling Hose Clip	1946 F-M
	120628	1	Clip Screw— $\frac{1}{4}$ "-20 x $\frac{1}{2}$ "	1946 F-M
	133049	1	Clip Screw— $\frac{1}{4}$ "-20 x 1"	1946 F-M
	131395	2	Clip Screw Nut— $\frac{1}{4}$ "-20	1946 F-M
	120380	2	Clip Screw Nut Lock Washer— $\frac{1}{4}$ " Std.	1946 F-M
E-30	66078	1	Rear Coupling Hose Conduit $2\frac{1}{2}$ " long	1946 F-M
E-31	66079	1	Rear Coupling Hose Band— $\frac{3}{4}$ " wide	1946 F-M

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Fargo, N. D.

Transportation Equipment Company, Inc.
3520 Clinton Drive, P. O. Box 2073
Houston 1, Texas

South Side Equipment Company, Inc.
109 West Morris Street
Indianapolis 2, Indiana

B & C Equipment Company
1839 Main Street
Jacksonville 6, Florida

Perfection Spring & Equipment Company
2550 McGee Trafficway
Kansas City 8, Missouri

Jumbo Equipment Company
1012-18 South Los Angeles Street
Los Angeles 15, California

Truckstell Tri-State Equipment Company, Inc.
3600 7th Street Road
Louisville, Kentucky

Dealers Truckstell Sales, Inc.
365 So. Parkway West, P. O. Box 1020
Memphis 1, Tennessee

Kearns Equipment, Inc.
3539 West State Street
Milwaukee 8, Wisconsin

Chas. Olsen & Sons, Inc.
Pillsbury at Lake Street
Minneapolis 8, Minnesota

Transportation Equipment Co., Inc.
35-37 Van Buren Street
Newark 5, N. J.

Ruckstell California Sales Company
2985 Ford Street
Oakland 1, California

Perfection Equipment Company
1204 W. Main Street
Oklahoma City, Oklahoma

Palm Bros. & Kuncel, Ltd.
2214-20 Farnam
Omaha 2, Nebraska

William & Harvey Rowland, Inc.
1414 Fairmont Avenue
Philadelphia 30, Pa.

Wilcox Brothers
5157 Liberty Avenue
Pittsburgh 24, Pa.

Northwest Truckstell Sales
835 South East Hawthorne Blvd.
Portland 14, Oregon

Smith-Moore Body Company, Inc.
Brook Road at Lombardy
Richmond 20, Virginia

The Lang Company
267 West First South Street
Salt Lake City 9, Utah

Washington Truckstell Sales, Inc.
7009 Greenwood Avenue
Seattle 3, Washington

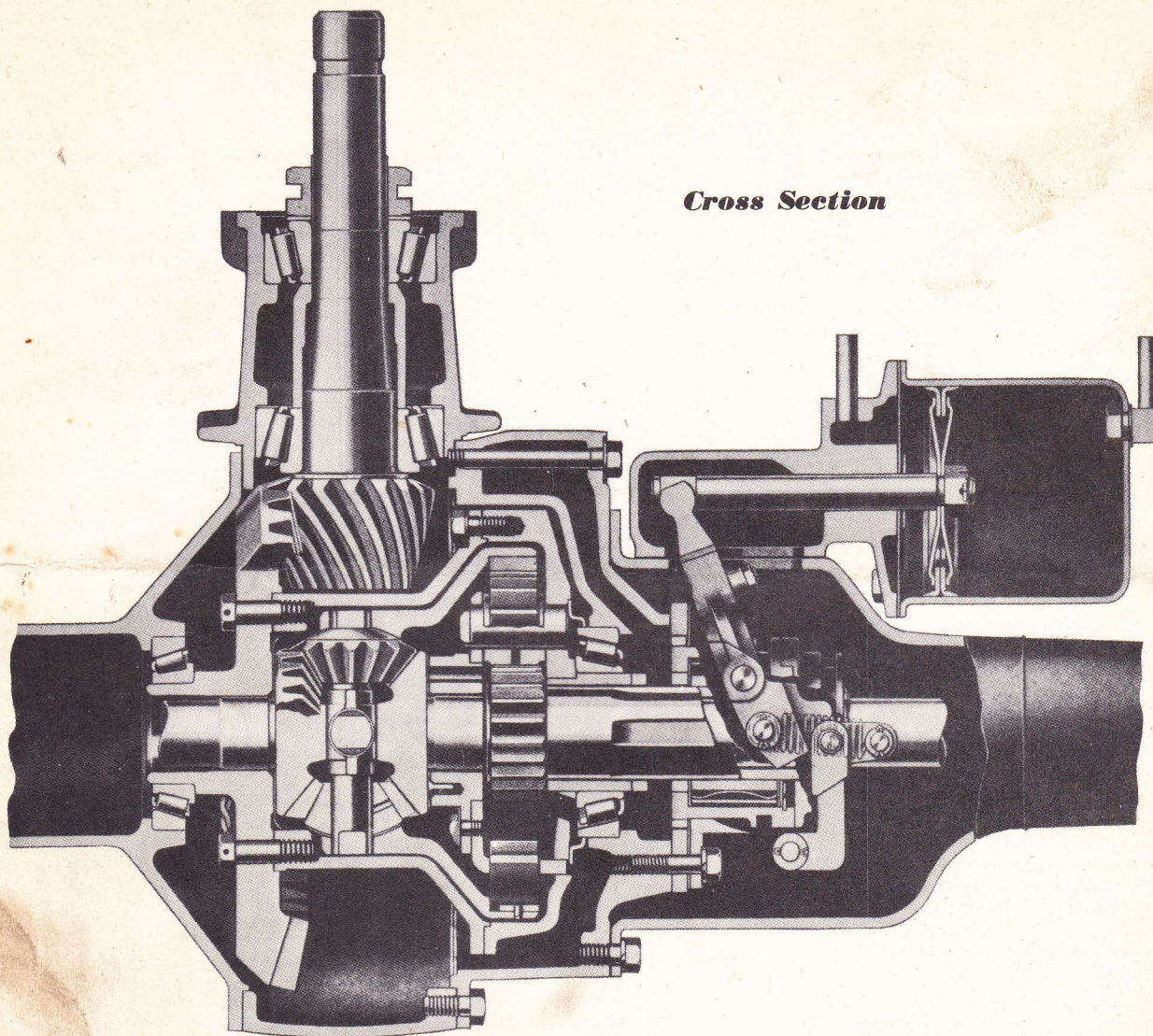
Mountain State Industries, Inc.
MacCorkle Ave., P. O. Box 12
So. Charleston, West Virginia

Truck Equipment Company
511 No. Channing Avenue
St. Louis 3, Missouri

Perfection Equipment Company
235 North Emporia Street
Wichita 2, Kansas

Universal Equipment Co., Ltd.
777 Ala Moana, P. O. Box 2693
Honolulu 3, Hawaii

Mr. Thomas M. Nevin Y CIA., S. A.
Dolores 16 - 603
Mexico City, D. F.



Cross Section

WARRANTY

The Columbia Axle Company warrants all such parts of new Columbia Overdrive Axles for a period of 90 days from the date of original delivery to the purchaser of each new Overdrive Axle or before the unit has been driven 4,000 miles, whichever event shall first occur, as shall, under normal use and service, appear to it to have been defective in workmanship or material. This warranty shall be limited to shipment, to the purchaser without charge, except for transportation, of the part or parts intended to replace those acknowledged by The Columbia Axle Company to be defective. The Columbia Axle Company cannot, however, and does not accept any responsibility in connection with any of its Overdrive Axles when they have been altered outside of its own factory. If the purchaser shall use or allow to be used in the axle, any parts not made or supplied by The Columbia Axle Company, then this warranty shall become void. The Columbia Axle Company does not undertake responsibility to any purchaser of its products for any undertaking, representation or warranty made by sellers of those products, beyond those herein expressed.

The Columbia Axle Company reserves the right to make changes in design and changes or improvements upon its product without imposing any obligations upon itself to install the same upon its products heretofore manufactured.

The Columbia Axle Company
Cleveland, Ohio