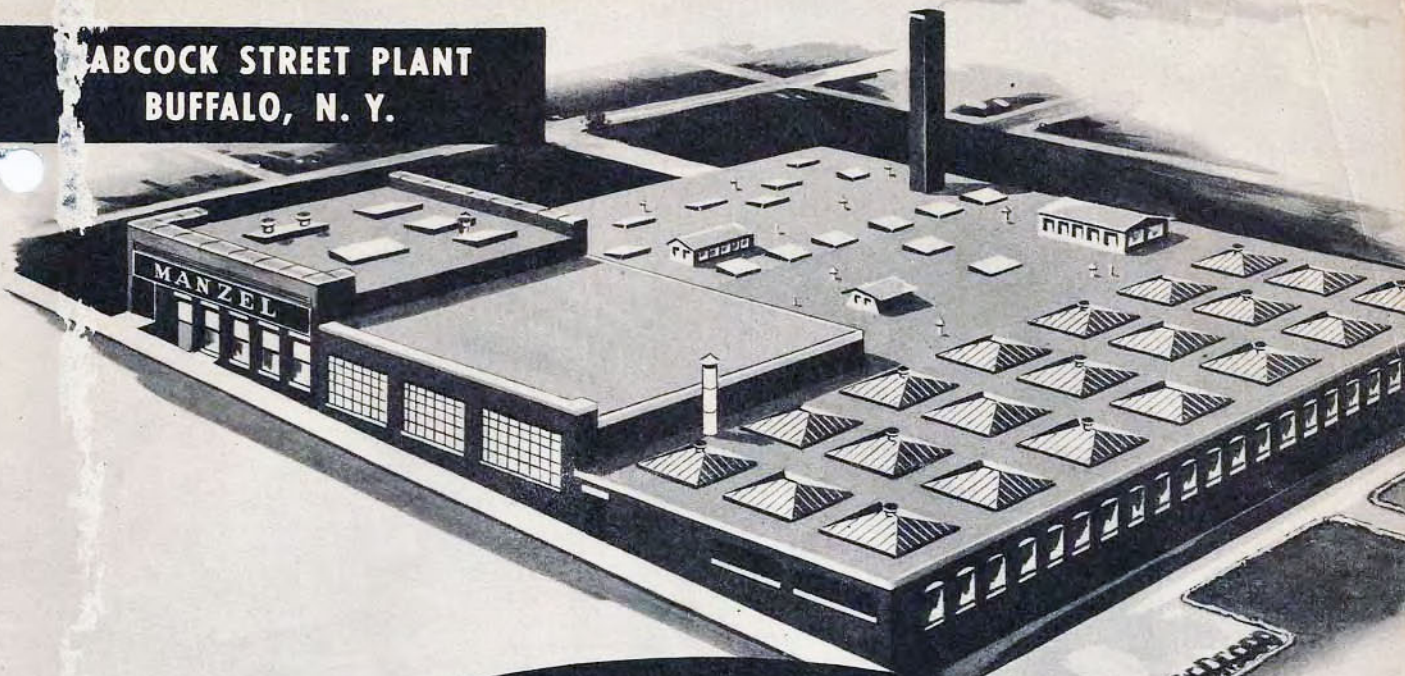
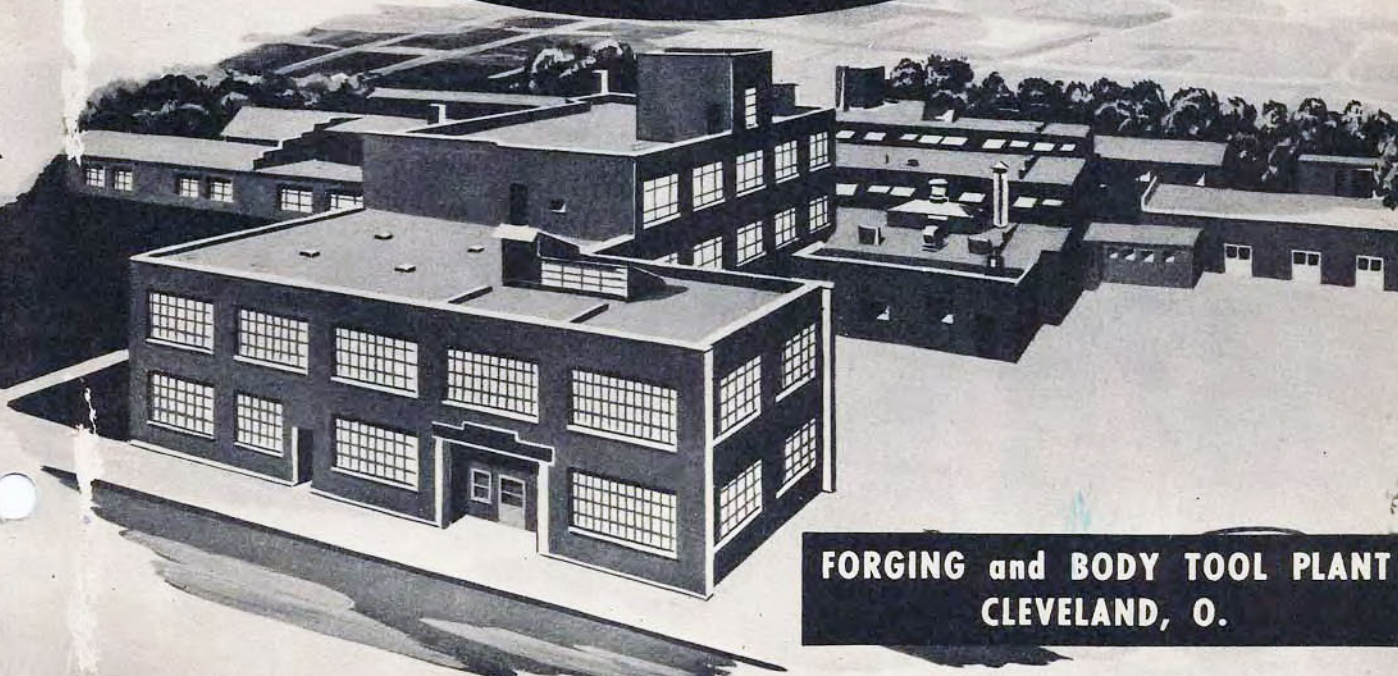


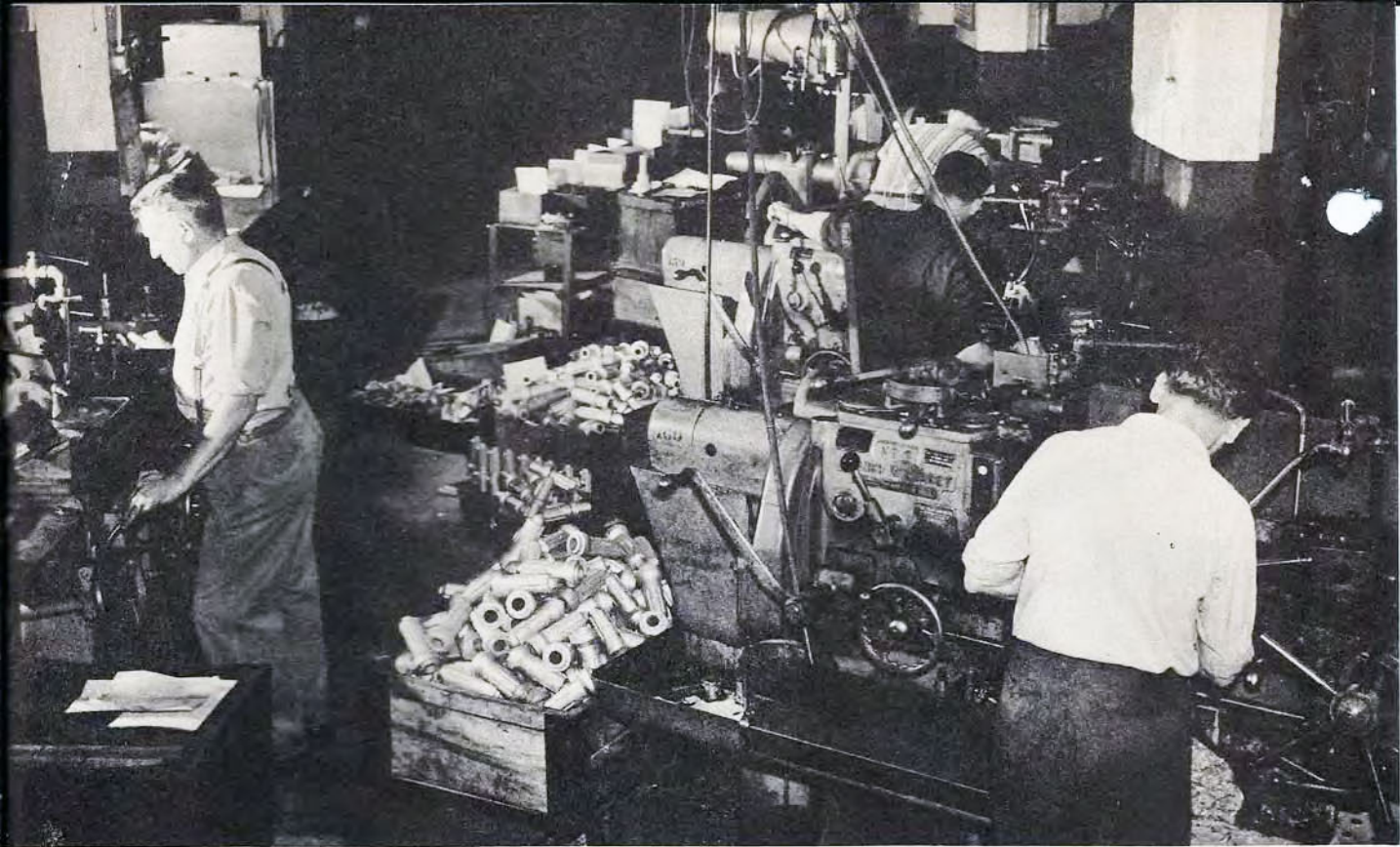
**ABCOCK STREET PLANT
BUFFALO, N. Y.**



Manzel's
EXTENSIVE MANUFACTURING FACILITIES



**FORGING and BODY TOOL PLANT
CLEVELAND, O.**



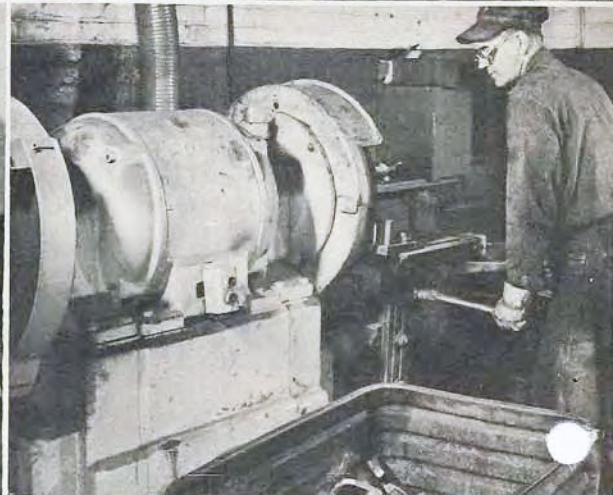
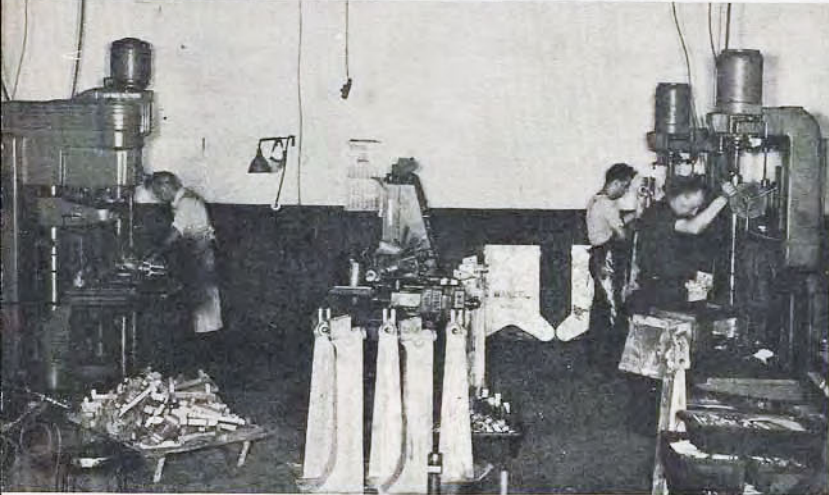
COMPLETENESS On these pages, we show a few of the many planning, engineering, manufacturing and inspection operations carried on in our big plants in the production of Manzel automotive tools and shop equipment. These modern and ample facilities assure our customers of an uninterrupted flow of Manzel products that are fully guaranteed as to workmanship and material.





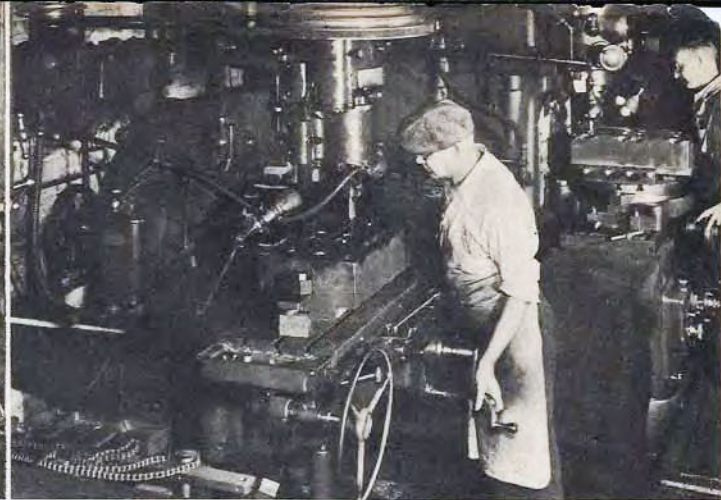
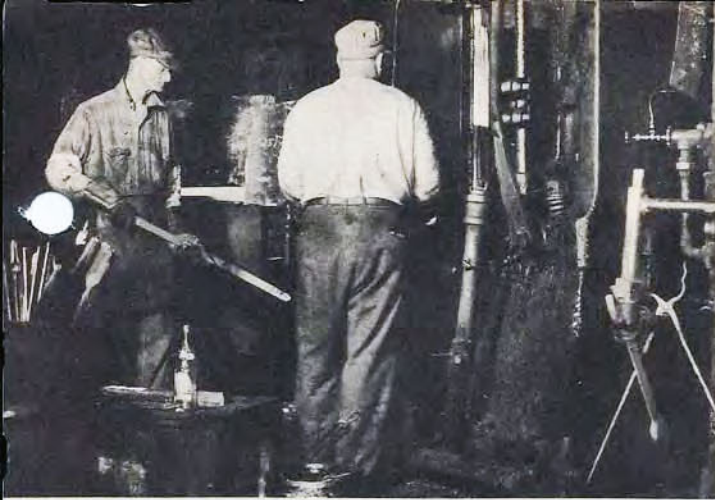
EXPERIENCE Back of these extensive activities is Manzel's experience of more than 50 years in the design and production of precision tools and equipment. In addition to automotive service tools, these Manzel products include force feed automatic lubricating equipment for diesel and other types of engines and machines. This experience has been especially valuable in the engineering and manufacture of hydraulic tools such as Manzel cranes and jacks.





ENGINEERING COLLABORATION Augmenting this long and highly successful manufacturing span has been more than 30 years of engineering collaboration with the automotive industry. As the Authorized Tool Supplier for Ford and Lincoln-Mercury Dealers, Manzel continuously works with Ford Motor Company Engineers. Manzel Service Engineers are in the field at all times keeping abreast of the practical requirements of Ford and Lincoln-Mercury Dealers.





FACTORY DESIGNED, TESTED AND APPROVED

You can buy the Manzel special Ford and Lincoln-Mercury Service Tools listed in this catalog with the assurance that they are factory-designed, tested and approved. More, they are "dealer-tested" through daily use in thousands of Ford and Lincoln-Mercury dealerships throughout the world.

The constant aim of Manzel is to engineer and manufacture special service tools that save time and cut costs . . . and to design them so that the fewest possible number of tools are needed for servicing all models of Ford and Lincoln-Mercury vehicles.

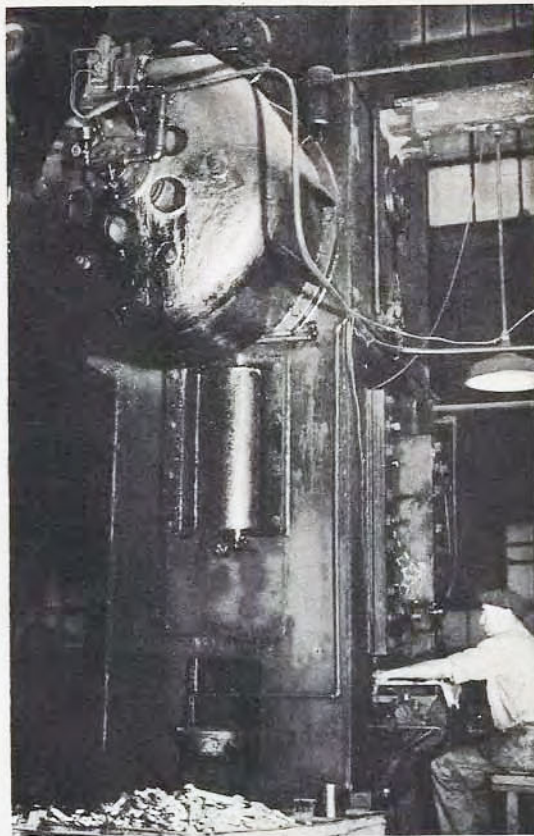


MANZEL SERVICE IS COMPLETE

And we mean *complete*. Everything—special service tools and shop equipment—is readily available. If desired, Manzel gladly will help dealers plan complete dealerships or Service Station Shop layouts.

Manzel products are guaranteed—and will be replaced without charge if within a reasonable time a failure occurs due to workmanship or material. If a failure occurs, Manzel should be notified and the article held pending instructions as to disposition.

**On urgent requirements, telephone Buffalo, FAirview 5300
and reverse the charges.**



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(Items with ** in page column are illustrated in 1950 catalog.)

MODEL INDEX will give you page number on which appears description and illustration of item.

Manzel

DIVISION OF FRONTIER INDUSTRIES, INC.

315 BABCOCK STREET, BUFFALO 10, NEW YORK

AUTHORIZED SERVICE TOOLS

All FORD and LINCOLN-MERCURY VEHICLES

Factory Designed, Tested and Approved

HUB TOOLS

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD					FORD		Other Cars	
			'39-'48	'49-'50	V-12	V-8	Pass. Cars		'48-'50 TRUCKS	Sta. Wgn.	Motor Coach						
								1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50	5 MB	8 MB		
— Puller Assembly Rear Hub	FLM-1113	1	x		x		x										
Remover — Grease Retainer " "	1175-B	2	x	x	x	x	x	x					x				x
— Inner Bearing Cup " "	1243-B	7															
— Outer Bearing Cup " "	4628-C	9									x	x					
Remover — Inner Bearing Cup Front Hub	FLM-1202-A	4	x		x	x	x										
— Inner Bearing Cup " "	1202-B	4		x													
— Inner Bearing Cup " "	1202-D	4						x									
— Outer Bearing Cup " "	FLM-1217-A	4	x	x	x	x	x										
— Outer Bearing Cup " "	1217-D	4						x									
— In. & Out. Bearing Cups " "	4222-C	7									x	x					
Replacer — Grease Retainer Rear Hub	1175-A	2	x		x		x										
— Inner Oil Seal Retainer " "	1175-C	2										x					
— Inner Oil Seal " "	1175-E	3									x						
— Inner Oil Seal " "	1175-F	3								x					x	x	
— Outer Bearing Cup " "	1239	5										x					
— Outer Bearing Cup " "	1239-A	5								x							
— In. & Out. Bearing Cups " "	1239-B	6												x	x		
— Inner Bearing Cup " "	1243	6										x					
— Inner Bearing Cup " "	1243-A	6									x						
— Outer Bearing Cup " "	4222-E	8									x			x	x		
— Inner Bearing Cup " "	4222-F	8								x							
Replacer — Inner Bearing Cup Front Hub	FLM-1202	3	x		x	x	x										
— Inner Bearing Cup " "	1202-C	3		x													
— Outer Bearing Cup " "	FLM-1217	4	x	x	x	x	x										
— Outer Bearing Cup " "	1217-B	5									x	x					
— In. & Out. Bearing Cups " "	1217-C	5						x									
— Inner Bearing Cup " "	4222-B	7									x	x					
Rem. & Rep.—Hub & Gr. Cap—Front & Rear Hub	1139	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Rethreading Dies—Front & Rear Hub		107	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Swage — Hub Bolt Front & Rear Hub	FM-1102	1	x				x										
— Hub Bolt " " " "	FM-1102-A	1															x
Wrench — Outer Bearing Nut Rear Hub	4252	8									x	x					
— Outer Bearing Nut Rear Hub	4252-A	8							x					x	x		

BRAKE TOOLS

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD TRUCKS				FORD			Other Cars		
			'39-'48	'49-'50	v-12	v-8	Pass. Cars	'48	'50	1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50 Sta. Wgn.		Motor Coach	5 MB
Remover & Replacer — Return Spring	2086-L	10						x						x				
“ & “ — Shoe Hold Down	M401-MT1	10		x		x		x						x				x
Spreader—Return Spring	2296	11																
“ — “ “	2296-A	11																
Wrench & Tube Assembly — Bleeder	2061	10		x		x		x										
Wrench — Anchor Nut Adjustment	2027	9							x									
“ — “ “ “	2027-A	9												x	x			
“ — Shoe Adjustment	2018	9		x	x	x												x
“ — Worm Adjustment	2233	10																

SPRING TOOLS

Remover & Replacer — Spring Shackle	FLM-5464	20	x		x		x												x
“ & “ — “ “	FLM-5464-A	20	x		x		x												x
Spreader — Rear Spring Leaf	5560	19		x		x													
“ — “ “ “	5560-A	19						x											
Remover — Rear Top Pin — Shackle	5780	20							x	x									

SUSPENSION TOOLS

Burnisher — Spindle Bushings	3110-AA	15						x											
Expanding Tool — Lower Arm	3042-K	11						x											
“ “ “ “	3042-L	12		x		x													
“ “ — Upper Arm	3044-K	11						x											
“ “ — “ “	3044-L	12		x		x													
Press — Spindle Bushing	FLM-3110-B	13	USE WITH 3110 AND 3110-A																
Reamer — Spindle Bushing — Exp. Type	FM-3110-C	14	x					x											
“ — “ “ — “ “	L-3110-D	14			x														
“ — “ “ — Solid Type	FM-3110-C1	14	x					x											
“ — “ “ — Upper	3110-GG	14												x	x				
“ — “ “ — Lower	3110-H	14												x	x				
“ — “ “ — Solid	3110-J	14		x		x													
“ — “ “ “	3110-L	14						x											
Remover — King Pin	3115	16	x					x											
“ — “ “	3115-A	16			x														
“ — Spindle Bolt	3110-CC	15												x	x				
Remover & Replacer — Spindle Bushing	3110	13	x					x											
“ & “ — “ “	3110-A	13		x	x	x													
“ & “ — “ “	3110-E	13												x	x				
“ & “ — “ “	3110-K	13																	
Separator— Shock Absorber Link	LM-18055-6	96	x	x	x	x	x	x											x
Shock Absorber Tools	18080-B to L	97	Gabriel & Monroe																
Spotfacer— Spindle Plug	3052	12		x		x													
“ — Spindle Support	3052-L	13						x											
Wrench — Camber & Caster Adj.	3046-A	12		x		x		x											
“ — “ & “ “	3046-B	12						x											

STEERING TOOLS

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD TRUCKS					FORD		Other Cars		
			'39-'48	'49-'50	V-12	V-8	Pass. Cars	'48	'50	1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50 Sta. Wgn.		5 MB Motor Coach	8 MB
Remover — Gear Shift Socket Sleeve	7224	82		x		x												
“ — Steering (Pitman) Arm	3130	16																
“ — Steering Ball Joint	3290-B	17	x		x		x						x	x				
“ — Steering Pitman Arm	3590	18	x	x	x	x	x		x	x								x
“ — Steering Arm	3590-A	18						x										
“ — Steering Wheel	3600-A	18																
“ — “ “	3600-AA	19	x	x	x	x	x	x	'50	'50	'50	'50	'50	'50	'50			
Remover — Worm Bearing Cup	3552	17		x		x												
Replacer — “ “ “	3552-A	17		x		x												
Rem. & Repl. — Worm Sector Bushing	3576-L	17		x		x												
Scale — Steering Wheel Tension	3600-F	16	x	x	x	x	x	x	x	x					x			x

REAR AXLE TOOLS

Drive Nut — Pinion Shaft	4201	25		x		x													
Gauge — Pinion Depth	4020-A	23																	
“ — “ “	4020-B	23		x		x													
“ — Ring Gear Run-Out & Backlash	4201-A	25		x		x													
“ — Pinion Depth	4610-A	36						x											
Holder — Companion Flange	4851-B	45																	
“ — “ “	4858-F	47																	
“ — Drive Pinion Flange	4851	45																	
“ — “ “ “	4851-C	45		x		x													
“ — Differential Housing	4205	26		x		x													
Indicator — Back Lash — Drive Pinion	4201-C	25																	
Lifting Tool — Pinion Gear Assembly	4609	35																	
“ “ — “ “ “	4609-B	35																	
Locating Pins — Pinion Brg. Cage	4608	35																	
Master Pinion	4610-CC	37																	
Mount & Spindle Adapter — Diff. Carrier	4032-A	24																	
Mount & Spindle — Differential — Rep. Std.	4032	23																	
“ & “ — Repair Std.— R. Axle	4005	22	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Peen Tool — Drive Pinion Shaft	4609-A	35																	
Remover — Axle Shaft Bearing	1225-A	21																	
“ — Brg. Retaining Ring	2240-A	22																	
“ — Companion Flange	4851-A	45																	
“ — “ “	4858-D	46		x		x													
“ — Diff. Side Bearings	4221-L	30																	
“ — “ “ “	4221-K	30																	
“ — Diff. Side Bearing — Cone	4221-C	27	x	x	x	x													
“ — “ “ “ — Lt. Hd.	4221-D	28																	
“ — “ “ “ — Rt. Hd.	4242-A	33																	
“ — “ “ “ — Cups	4222-C	31																	

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

REAR AXLE TOOLS (Continued)

DESCRIPTION	TOOL No.	PAGE	MERCURY		LINCOLN		FORD		FORD TRUCKS				FORD			Other Cars			
			'39-'48	'49-'50	V-12	V-8	Pass. Cars		'48	'50	1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton		'49-'50 Sta. Wgn.	5 MB Motor Coach	8 MB
Remover — Drive Pinion Bearing	4615-C	38																	
" — " " "	4621-E	38																	
" — " " "	4621-G	38																	
" — Drive Pinion Brg. Cup	4222-C	31																	
" — Drive Pinion Flange	4839	44																	
" — Drive Pinion Pilot Brg.	4625-D	41																	
" — Front Pinion Brg. Cup	4628-B	41																	
" — Grease & Oil Seal	1175-H	73	x	x	x	x	x	x	x	x					x				x
" — Housing Bearing Cup	4222	30	x		x		x	x							x				
" — Housg. & Shaft Grease Retr.	4245-D	34	x		x		x	x											
" — Pinion Bearing	4621-B	39				x													
" — " "	4621-H	40																	
" — Pinion Bearings	4628-F	42																	
" — Pinion Shaft & Bearing	4621	39	x		x														
" — Pinion Shaft & Brg. Assem.	4609-D	36																	
" — Prop. Shaft Center Brg.	4658	43	x		x														
" — Prop. Shaft Roller Brg. Sleeve	4655-B	43	x		x														
" — Rear Pinion Brg. Cup	4628-D	41			x														
" — Shaft & Bearing	4235-A	32			x														
" — Shaft Bearing Grease Retr.	4245	33	x		x														
Replacer — Bearing & Oil Seal	4245-B	34			x														
" — Companion Flange	4839-D	44																	
" — " " "	4858-E	47																	
" — Comp. Flange Dust Shield	4859	47			x														
" — Differential Bearings	4222-H	32	x	x	x	x	x	x	x	x									
" — " " "	FLM-4221		Superseded by 4222-H																
" — Diff. Side Bearing—Lt. Hd.	4221-E	28																	
" — " " " —Rt. Hd.	4242	33																	
" — Diff. Side Brg. — Lt. & Rt. Hd.	4221-F	28																	
" — Diff. Side Brg. — Cone	4221-J	29																	
" — " " " — Cups	4222-D	31																	
" — Drive Pinion Bearing	4615-A	37																	
" — " " " "	4621-A	37																	
" — " " " "	4621-D	37																	
" — " " " "	4621-F	37																	
" — Drive Pinion Brg. Cup	4222-G	31																	
" — Drive Pinion Inner Brg.	4615	37																	
" — Drive Pinion Pilot Brg.	4625	40																	
" — Drive Pinion Pilot Brg.	4625-A	40																	
" — " " " "	4625-C	40																	
" — Drive Pinion Flange	4839-A	44																	
" — Housing Bolts	4198	24																	
" — Housing Bearing Cup	4222-A	30	x		x														
" — Housing & Prop. Shaft Gr. Retr.	4245-A	34	x		x														
" — Pinion Bearing & Flange	4858-B	46																	
" — Pinion Bearing Cups	4628-E	42																	
" — Pinion Rear Bearing Cup	4628-A	41																	
" — " Shaft Ft. Brg. Cup	4616	38																	
" — " " Grease Retr.	4676	43																	
" — " " Oil Seal	1175-D	21																	
" — " " " "	4676-A	44																	

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

REAR AXLE TOOLS (Continued)

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD				FORD		Other Cars		
			'39-'48	'49-'50	V-12	V-8	Pass.Cars	'48-'50	TRUCKS				Sta. Wgn.	Motor Coach			
								1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50	5 MB	8 MB		
Replacer — Pinion Shaft Pilot Bearing	4616-A	38	x		x		x										
“ — “ “ Rear Brg. Cup	4628	41				x											
“ — Propeller Shaft Center Brg.	4658-A	43	x		x		x										
“ — “ “ Roller Brg. Sleeve	4655-A	42	x		x		x										
“ — Shaft Bearing	1225-B	21						x									
“ — “ Oil Seal	1177	21						x									
Remover & Repl. — Differential Bearings	4221-AB	27						x									
“ “ “ — Diff. Side Brg.—Lt. Hd.	4221-H	29								x							
“ “ “ — “ “ “ —Rt. Hd.	4221-G	29								x							
“ “ “ — Main Bearing	4234	32		x		x		x					x				
“ “ “ — Pinion Bearing	4621-C	39	x		x		x										
“ “ “ — “ “ “	4625-F	40						x									
Scale — Pinion Tension	4209	26	x	x	x	x											
“ — “ “	4209-B	26					x	x					x	x	x		
“ — “ “	4209-C	26						x									
Spreader — Differential Housing	4000-A	22		x		x		x					x				
Wrench — Companion Flange Nut	4851-E	46				x											
“ — “ “ “ “	4851-F	46		x													
“ — Differential Brg. Adjust.	4067-B	24						x									
“ — Drive Pin. Gr. Retaining Nut	4609-C	36								x							
“ — Pinion Flange Nut	4858-G	47	USE WITH TOOL 4858-B														
“ — Companion Flange Nut	4209-C12	26					x			Use with 4209-C							
Wrenches — Pinion Bearing Lock Nut	4634	42	x		x												
“ — “ “ “ “ “	4634-A	42						x						x	x		

ENGINE TOOLS

Cleaner — Piston Ring Groove	LM-6110	53	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — Valve Stem Guide	6510-F	66		x		x		x	x	x	x	x	x	x	x	x	x	
Compressor — Piston Ring	6150	55	x	x			x	x	AND SIX CYLINDER									
“ — “ “	6150-A	55				x				x	x					x	x	
“ — Valve Spring	6513-B	68	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Compressor — Valve Spring	6513-BB	70				x	Use with 6513-AA—Lifter				x	x			x			
“ — “ “	6513-C	68					x	x	x	x	x	x	x	x	x	x	x	
“ — “ “	6513-D	68	ALL 6 CYLINDER ENGINES															
“ — “ “	6513-G	69																
Cutter — Valve Seat	6505-AA	107										x	x					
Drill Fixt. & Ext. Drill — Timing Gear	6256-AA	57	LATE '49-'50 FORD 6 CYL. ENGINES															
Engine Display Stands	See Page	50	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ Repair “	See Page	48	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Expander — Piston Ring	6149-2	54	x	x			x	x	x	x				x	x	x	x	
“ — “ “	6149-3	54										x	x					
“ — “ “ — 6 cyl.	6149-4	54	ALL FORD 6 CYL. ENGINES															
Gauge — Valve Setting — Micro.	LM-6505-A	63	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Hook Tool — Connecting Rod	L-6200	55	x				x											
“ “ — “ “	6205	55				x												

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

ENGINE TOOLS (Continued)

DESCRIPTION	TOOL No.	PAGE	MERCURY		LINCOLN		FORD		FORD TRUCKS					FORD			Other Cars	
			'39-'48	'49-'50	V-12	V-8	Pass. Cars	'48	'50	1/2 Ton	3/4, 1&1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50	5 MB		8 MB
Indexer — Valve Clear. — Block Mtg.	6251-A to H	56	ALL MODELS TO '48 INCLUSIVE															
“ — “ — “ — Dist. Mtg.	6251-L	56	x		x		x		x		x		x		x		x	
“ — “ — “ — “ — “	6251-K	56																
Inserting Sleeve — Piston	FLM-6149	54	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lifter — Valve— 6 & 8 cyl.	6513-A	68					x	x	x	x	x	x	x	x	x	x	x	x
“ — “ — Engine	6513-AA	70		x		x		x										
“ — “ — (Foot Only)	6513-A2	68																
Lifting Fixture — 8 & 12 cyl.	LM-6011	52	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x
“ Hook Assembly — 8 & 12 cyl.	6000	51	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — “ — 6 cyl.	6000-A	51	ALL FORD 6 CYL. ENGINES															
Manifold Riser	6519	72				x									x			x
“ — “	6519-D	72	x				x											
“ — “	6519-E	72			x													
“ — “	6519-F	72		x				x	x							x		
Micro Gauge — Rotator Valve Setting	6513-CC	69	FREE STEM VALVES															
Pilot Stud — Cylinder Head	6049-A	53	x		x													
Press — Valve Assembly	6505-C	64	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Rack — Piston & Valve	6110-A	53	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Reamer — Cylinder Ridge	6011-A	52	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Flywheel	6387-E	63				x												
“ — Piston Pin	6135-B	54	x		x													x
“ — Valve Stem Guide — .001 o. s.	6510-AA	64						x							x			
“ — “ — “ — .005 o. s.	6510-AAA	64						x							x			
“ — “ — “ — “	6510-D	64		x		x		x	x	x	x	x	x	x	x	x	x	x
Reaming Fixture — Flywheel	6387-D	63				x												
Remover — Crankshaft Gear — 6 & 8 cyl.	6306-H	60	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Crankshaft Pulley — V8	6306-AB	61																
“ — Distributor Drive Gear	3290-B	51	x	x	x		x	x	x									x
“ — “ — “ — “	6254-C	57	x	x			x	x										
“ — Flywheel	6384	62	x	x	x		x	x	x	x	x						x	x
“ — “ — Dowel	6387	63																
“ — “ — “	6387-AA	63					x											
“ — Fuel Pump Eccentric	6254-C	57					x											
“ — Oil Pump Driving Gear	6254-C	57	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — “ — Idler Gear Shaft	6656-B	73	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Timing Gear — Fibre	6256-AB	58	LATE '49-'50 6 CYL. ENGINES															
“ — “ — Alum.	6256-A	57	x		x		x											
“ — Valve Assembly	6510-BB	65	x	x	x	x	x	x							x			x
“ — “ — Guide Retainer	6513-E	69	x	x	x		x	x										
“ — “ — Stem Guide	6510-B	64					x											
“ — “ — “ — “	6510-K	66	ALL FORD 6 CYL. ENGINES															
“ — “ — “ — “	LM-6512-A	67				x												
“ — Vibration Damper — V12	6360-A	62				x												
“ — “ — “ — 6 & 8 Cyl.	6316-F	62				x		x	x	x	x	x	x	x	x	x	x	x
Remover & Lifter — Valve Assembly	6512	67	x		x		x											

ENGINE TOOLS (Continued)

DESCRIPTION	TOOL No.	PAGE	MERCURY		LINCOLN		FORD		FORD TRUCKS			FORD			Other Cars				
			'39-'48	'49-'50	V-12	V-8	Pass. Cars		'48-50	2 Ton	2 1/2 Ton	3 Ton	Sta. Wgn.	Motor Coach		8 MB			
Remover & Replacer—Camsht. Thrust Collar	6264	59	ALL FORD 6 CYL. ENGINES																
“ & “ — Ckst. Brgs.—6 cyl.	6261-A	59	ALL FORD 6 CYL. ENGINES																
“ & “ — “ —6 & 8	6261-B	59	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Remover & Replr — Upper Main Bearing Insert	6331	107	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Replacer — Camshaft Oil Pump Gear	6254-B	55	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — Camshaft Welch Plug—6 cyl.	6266	59						x	x	x	x						x	x	
“ — Crankshaft Gear	6306-A	60		x		x		x	x	x	x	x	x	x	x	x	x	x	
“ — Camshaft Welch Plug	6266-A	60						x											
	6306-J																		
“ — Crankshaft Gear & Damper	6306-AA	61	ALL FORD 6 CYL. ENGINES																
	6306-C	61	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — “ “ “ “	6306-K																		
Replacer — Oil Pan Rear Packing	6007	49				x							x	x				x	
“ — Oil Pump Idler Gear Shaft	6656-A	73	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — Piston Pin	6135	54				x							x	x				x	
“ — “ “	6135-A	54		x															
“ — Rear Ckst. Brg. Upper Seal	6007-A	52				x							x	x				x	
“ — Timing Gear	6256-BB	58	ALL FORD 6 CYL. TIMING GEARS																
“ — Valve Lock	6518	71		x			x						x	x			x	x	
“ — Valve Spring Keeper	6518-AA	106	FREE STEM VALVES																
“ — Valve Stem Guide	6510-J	66	ALL FORD 6 CYL. ENGINES																
“ — “ “ “	6510-L	66				x							x	x			x	x	
“ — Vibration Damper	6316-C	62		x		x							x	x			x	x	
“ — “ “	6360	62			x														
Scale — Piston Pull	FLM-6110-A	53	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Tappet Adjustment Wrenches	6549-A	72	1949 6 CYL. PASS. ENGINES																
Turning Tool — Crankshaft	6303-C	60	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ “ — “	6303-D	60	ALL FORD 6 CYL. ENGINES																
Turning Tool — Str. Pad Mtg.	6303-E	100				x							x	x				x	
Valve Guide Bore Cleaner	LM-6512-B	67	x	x	x	x	x											x	
“ Grinding Bushing	LM-6512-C	67	x	x	x	x												x	
Welch Plug — Expander & Drift Set	6307-A	61				x													
Wrench — Oil Filter Bracket	6050-B	49		x		x		x	x	x	x	x	x	x	x	x	x	x	
Wrench — Oil Pressure Gauge	LM-9278	73	x		x		x												
Wrenches — Tappet Adjusting — Pr.	6549	72	ALL FORD 6 CYL. ENGINES																

TRANSMISSION, OVERDRIVE & CLUTCH TOOLS

Aligning Pins — Trans. Housing	7000-A	74				x												
Alignment Hook — Cluster Gear	7113-B	79											x	x				
Assembly Ring — Synchro-Mesh	7124	81	x						x									
Assembly Tool — Cover Fork Spring Plunger	LM-7235	82	x															
“ “ — Rawhide Driver	FLM-7005	75	x				x											
Compressor — Clutch	7563	84		x		x		x	x			x	x	x	x			
Driver — Splined Bronze Bushing	7069	78	x															
Driving Head — Rear Seal Assembly	7657-K	83		x														
“ “ — “ “ “	7657-L	83				x												
Dummy — Trans. Countershaft	7111-A	79									x	x						
Fixture Bearing Assembly	LM-7025	75				x												
Holding Base — Water Pump	7117	80	x				x											x
Mount & Spindle — Trans. & O'Drive	7000	74				x												
“ & “ — “ & “	7005	74	x	x	x		x											

TRANSMISSION, OVERDRIVE & CLUTCH TOOLS (Cont.)

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD TRUCKS				FORD		Other Cars		
			'39-'48	'49-'50	V-12	V-8	'39-'48	'49-'50	Pass. Cars	'49-'50	1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton		3 Ton	'49-'50 Sta. Wgn.
Pilot — Countershaft Assembly	7111	79															
“ — Cluster Gear Roller Retainer	7121	79															
“ — Disc Assembly — Clutch	FLM-7550	83	x		x			x									
“ — “ “ “	7563-A	84															
“ — Idler Shaft Alignment	7141	81	x					x									
“ — Main Shaft Front Bearing	7118	86															
“ — Plunger Shifter Shaft	7240	82	x					x									
Positioning Tool — Pawl O'Drive	6915-AA	85															
Remover — Bearing-Trans. Ext. & O'Drive	7699-A	83		x													
“ — Drum & Flange Assembly	7089	78															
Remover — Gear Shift Socket Sleeve	7224	82		x													
“ — Grease & Oil Seal	1175-H	73	x	x	x	x	x	x	x					x			x
“ — Idler Gear Shaft	7140	81															
“ — “ “ “	7140-A	81															
“ — Main Dr. Sht. Brg.	7025-C	76															
“ — “ “ Gear Trans.	7025	75															
“ — “ Shaft Brg. O'Drive	7025-B	85															
“ — “ “ Snap Ring	7063	77															
“ — Oil Seal	1175-B	2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Pilot Bearing	7600-B	84	x		x			x						x			x
“ — “ “ Clutch	7600-E	85															
“ — Snap Ring	7064	77	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Remover Plate — Countershaft Gear	7113	80															
Remover & Replacer — Drive Gr. Brg.	4234	32		x													
Remover & Replacer — Ext. Drive Brg.	7697	86															
“ & “ — Needle Bearings	7698	86															
“ & “ — Main Drive Brg.	7045	77															
“ & “ — Universal Joint	7039	77		x													
Replacer — Brg. Ext. Trans. & O'Drive	7699	83		x													
“ — Countershaft Gears	7113-A	80															
“ — Drum Shaft Grease Retr.	4813	74															
“ — Lockout Lever	7688	86															
“ — Main Drive Gear Brg.	7025-A	76															
“ — “ “ “ “	7065-A	78															
“ — Main Shaft Snap Ring	7065	78															
“ — Oil Seal — Drive Sht. & O'Drive	7052-A	86															
“ — “ “ — O'Drive	7657-A	86		x	x	x	x	x									
“ — Pilot Bearing Clutch	7600-C	84	x	x	x	x	x										
“ — “ “ “	7600-D	84															
“ — Syncromesh Hub	7105	79															
Stop Yoke — Main Dr. Gear Brg.	7025-D	76															
Wrench — Governor	L-6919	85		x													
“ — “ — O'Drive	6919-L	85															

HYDRA-MATIC TRANSMISSION TOOLS

Page References are for Catalog 1—1949—Section 3

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD TRUCKS				FORD		Other Cars		
			'39-'48	'49-'50	V-12	V-8	Pass. Cars	'48	'50	1/2 Ton	3/4, 1 & 1/2	2 Ton	2 1/2 Ton	3 Ton		'49-'50 Sta. Wgn.	Motor Coach
Adjustable Carrier-Engine	6000-H	100				x											x
Adjuster — Servo Band	J-2681	100				x											x
Assembly — Slide Hammer	J-2619	100				x											x
Bender — Throttle Lever	J-3310	100				x											x
Checking Pin — Throttle Linkage	7000-B	100				x											x
Collet — Oil Seal Remover	J-2623	100				x											x
Compressor — Oil Del. Sleeve Ring	J-1537	100				x											x
Dolly — Transmission	7000-D	99				x											x
Extension Rod — Dial Indicator	J-1465	100				x											x
Gauge — Front Servo	J-1693	100				x											x
“ — Pressure Checking	J-2540	100	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Rear Servo	J-5071	100				x											x
“ — Reverse Gear Backlash	J-2650	100				x											x
“ — Transmission Throttle Lever	J-3298	100				x											x
Guide — Mainshaft End Play	J-2587	100				x											x
Hoist — Transmission	J-1636-C	99				x											x
Holder & Socket Set — Front Pump	J-2184-A	100				x											x
Holding Fixture — Transmission	J-2541	100				x											x
Installer — Front Cover Oil Seal	J-2170	100				x											x
“ — Transmission Oil Seal	J-1942	100				x											x
Pliers — Snap Ring	KMO-630	100	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Reamer — Flywheel	6387-E	63				x											x
Reaming Fixture — Flywheel	6387-D	63				x											x
Remover — “C” Washer	J-1458	100				x											x
“ — “ “	J-2182	100				x											x
“ — Flywheel Dowel	6387-AA	63				x											x
Retaining Bracket — Rear Clutch Hub	J-2174	100				x											x
Rivet Set — Governor Flange	J-2183	100				x											x
Set — Dial Indicator	KMO-30	100				x											x
Stand — Trans. Auxiliary Unit	J-2187	100				x											x
Support Column — Dial Indicator	7000-C	100				x											x
“ — “ — “	7001	100				x											x
Turning Tool (Starter Pad Mtg.)	6303-E	100				x											x

AUTOMATIC TRANSMISSION TOOLS

DESCRIPTION	Tool No.	Page	'51 Merc.	'51 Ford	Other Cars
Air Nozzle — Rubber Tip	7000-DE	117	x	x	x
Rubber Tip Only	7000-DD	117	x	x	x
Compressor — Front Clutch Spring	77565	122	x	x	
Compressor — Rear Clutch Spring	77515	121	x	x	
Engine Carrier — Adjustable	6000-J	117		x	x
Engine Carrier — Adjustable	6000-JJ	118	x		x
Extension — Dial Indicator Support	77067	120	x	x	
Gage — Throttle Control Lever Movement	77270-A	121	x	x	
Gage Pin (Used with above)	7000-B1	121	x	x	x
Guide Pins — Automatic Transmission	7975	120	x	x	
Hoist — Trans — Lift	7000-E	115	x	x	x
(Adapters available for all Automatic Transmissions)					
Holder — Clutch Assemblies	77530	121	x	x	
Holding Fixture — Transmission	7000-CC	118	x	x	x
Support Arm Assembly — Adapter	7000-CD	118	x	x	x
Linkage Adjusting Tool	77230-F	121		x	
Linkage Adjusting Tool	77230-M	121	x		
Oil Drain Can — Filter	7000-C2	117	x	x	x
Pressure Testing Gauge	77820	122	x	x	x

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

AUTOMATIC TRANSMISSION TOOLS (Cont.)

DESCRIPTION	Tool No.	Page	'51 Merc.	'51 Ford	Other Cars
Remover — Front Pump & Ext. Housing Oil Seal	1175-AE	118	x	x	x
Remover & Rep. — Rear Pump Discharge Tube	77869	122	x	x	
Remover — Snap Ring	7064	117	x	x	x
Replacer — Front Pump Oil Seal	77837	122	x	x	
Replacer — Inner One Way Clutch Race	7946	120	x	x	
Replacer — Manual Shaft Seal	77288	121	x	x	
Replacer — Oil Seal Drive Shield	7657-B	120	x	x	
Replacer & Pilot — Ext. Housing Oil Seal	7657	119	x	x	
Wrench — Front Band Adjustment	7225	119	x	x	
Wrench — Rear Band Adjustment	7195	119	x	x	

FUEL, COOLING, ELECTRICAL & BODY TOOLS

DESCRIPTION	TOOL No.	P A G E	MERCURY		LINCOLN		FORD		FORD				FORD		Other Cars	
			'39-'48	'49-'50	V-12	V-8	Pass. Cars	'39-'48	'49-'50	'48	'50	TRUCKS		Sta Wgn.		Motor Coach
Adjusting Bar — Door Hinge	0680-A	87					x									
“ “ — “ “ L. H.	7322800-A	99		x		x										
“ “ — “ “ R. H.	7322800	99		x		x										
Aligning Pins — Air Horn	9524	90		x		x		x			x	x				
Applicator — Anti-Static Powder.	M-18878	96	x	x	x	x	x	x								x
Assembly Tool — Rocker Arm — Fuel Pump	9350	89										x	x			
Bending Lever — Tension Spring	L-0021248-9	98			x											
“ “ — Voltage Reg.	10505-C-2	94	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Bending Tool — Float Level	9550-E	91		x	x							x	x			
Burnisher — Shaft Bushing	12132	95		x	x		x	x					x			
Carburetor Servicing Tools — Kit less Box	9510-GG	91	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ “ — “ “ with “	9510-GGB	91	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Counterbore Tool — Distributor	12131-A	95														
Distributor Body — Holding Block	12132-B	95	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Distributor Point — Tension Scale	12151	96					x									
Facer Bushing — Water Pump	L-8520-A	88			x											
Flexing Tool — Fuel Pump	9350-A	89										x	x			
Gauge — Float Level	9510-B	90					x									
“ — “ “	9550	90	x		x		x									
“ — “ “	9550-C	92													x	x
“ — “ “	9550-D	91		x		x						x	x			
“ — Liquid Level	9550-B	92		x		x						x	x			
Holding Tool — Carburetor	9510-C	90		x		x						x	x			
Point Tension Scale — Volt. Reg.	10505-D	94		x		x		x								
Reamer Bushing — Water Pump	FM-8520	88	x				x									
“ “ — “ “	L-8520	88			x											
Remover — Distributor Drive Gear	3290-B	17	x		x		x									
“ — “ “ “	12390-B	88		x	x		x	x	x	x	x	x	x	x	x	x
“ — Distributor Sht. Bushing	12132-B-1	95	x	x	x	x	x	x	x	x	x	x	x	x	x	x
“ — Econ. Piston & Stem	9904-B	92		x												
“ — Lock Barrel	L-7343505	99	x				x									
“ — Opening Button-Door	L-0022618	98			x											
Remover — Seal & Cup — Water Pump	8564-A	88			x							x	x			
“ — Window Cylinder Clip	L-5623200	97	ALL LINCOLN AUTOMATIC WINDOWS													
“ — Window Regulator Switch	L-7324206	99	ALL LINCOLN AUTOMATIC WINDOWS													
Remvr & Replr — Bushing — Water Pump	8520-B	88		x												
“ & “ — Drive Gear Lock Collar pin	12131	94	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Remover & Replr — Convertible Top Relief Valve	0736-A	87					x									

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

FUEL, COOLING, ELECTRICAL & BODY TOOLS (Cont.)

DESCRIPTION	TOOL No.	PAGE	MERCURY		LINCOLN		FORD		FORD TRUCKS				FORD			Other Cars.			
			'39-'48	'49-'50	V-12	V-8	'39-'48	'49-'50	Pass. Cars	1/2 Ton	3/4, 1&1/2	2 Ton	2 1/2 Ton	3 Ton	'49-'50 Sta. Wgn.		5 MB Motor Coach	8 MB	
Remvr & Replr — Handle Pin	7022614	99		x		x													
“ & “ — Rivet — Vo. Regulator	10505	94	x	x	x	x													
“ & “ — “ “ “	10505-AA	94		x		x		x	NEW TYPE REGULATOR										
Replacer — Dist. Shaft Bushing	12132-A	95		x		x		x				x	x					x	
“ — Econ. Piston & Stem	9904-C	93		x		x						x	x						
“ — Seal & Cup — Water Pump	8564-B	89		x		x		x				x	x						
Sealing Tool — Discs	9956-B	93							x	x	x	x	x						
“ “ — Governor	9956	93							x	x	x	x	x						
“ “ — Wires	9956-A	93							x	x	x	x	x						
Seating Tool — Idle Adj. Needle	9541	91	x	x	x	x	x	x	x	x				x					
Screw Driver — Distributor Points	FM-31036	98	x		x														
Staking Tool — Butterfly & Choke	9586	92	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Testing Tool — Economizer Valve	9904-A	93	x					x	x										
Water Pump — Assembly & Disassembly Kits	850-1	103		'49				'49						x					
	850-2	103		'50				'50											
	850-3	103				x						x	x						
(Available in combination sets to cover all vehicles)	850-4	103						6											
	850-5	103	x					x											
	850-6	103	'49	TRACTOR															
	850-7	103	'39 -	'48 TRACTOR															
Windshield Sealer Gun	FLM-403	27	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Wrench — Distributor Adj.	12150-D	96		x		x		x	x	x	x	x	x	x	x	x	x	x	
“ — Economizer Valve	FLM-9904	93	x		x		x												
“ — Float Needle Seat Cap	9510-BB	91		x		x					x	x	x						
“ — “ Valve Seat	9564	91	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — Fuel Jet — Carburetor	FM-9510	89	x				x												
“ — “ “ — “	FLM-9510-A	89	x		x		x												
“ — Hinge Tightening — Door	22801	95		x		x													
“ — Idle Tube	9544	91		x		x						x	x						
“ — Jet	9594-A	92															x	x	
Wrench — Main Metering Jet	9533	91	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
“ — Oil Pressure Gauge	LM-9278	73	x		x		x												
“ — Power Valve	9510-AA	91				x		x				x	x				x	x	
“ — Pump Rod Stud	9631	91		x		x						x	x						
“ — Retaining Nut — Wiper & Heater	17470	96						x											

FORD TRACTOR TOOLS - For 9N, 2N, & 8N Models

DESCRIPTION	TOOL No.	PAGE	DESCRIPTION	TOOL No.	PAGE
Adjusting Gauge — Hydr. Mech.	HG-100	106	Hoist — Engine	6050-A	53
Compressor — Accessory No. 1	6513-F1	71	Lift Plate — Transmission	7005-B	75
“ — “ No. 2	6513-F2	71	Mount & Spindle — Engine	6014	49
“ — Trans. Shifter Lever Spring	7227	82	Reseating Tool — Hydr. Pump Side Plate	N-607	106
“ — Valve Spring	6513-F	71	“ — Relief Valve	RS-100	106
Display Stand — Tractor Engine	T-115	50	Scale — Pinion & Trans. Tension	4209-D	26
“ “ — Cards	T-115-DC	50	“ — Piston Pull — Engine	FLM-6110-A	53
Engine Stand — Pedestal	6005-BA	48	Setting Gauge — Governor	18204	98
“ “ — Portable Base	6005-D	48	Spreader — Return Brake Spring	2296-A	11
“ “ — Portable Parts Tray	6005-PB	48	Testing Gauge — Hydraulic Pump	0600	87
“ “ — Swivel Tool Tray	6005-T	48	Wrenches — Pinion Brg. Locknut	4634-A	42

Order Tools from Manzel, 315 Babcock St., Buffalo 10, N. Y.

AUTOMOTIVE SERVICING EQUIPMENT

Page Reference is to Section 5 or Section 6 <i>Catalog 1, 1949.</i>	TOOL No.	P A G E	Page Reference is to Section 5 or Section 6 <i>Catalog 1, 1949.</i>	TOOL No.	P A G E
Anti-Freeze Tester	M-161-808	29	Micrometer Caliper Set 0" — 4"	M-140-224-AA	2
Axle Stand — 15" Low, 27" High	M-104-960	178	" — Check Rods 1", 2", 3", 4"		2
Battery Tools		30	Micrometer — Inside Set 2" — 8"	M-140-124-A	2
" Kit	M-161-70C	31	" — Crankshaft — 1½" to 2½"	M-140-436-2½	3
Blow Torches — Cap. 1 pint, 1 quart		24	Number Stamps — Steel		58
Body Repair Tools — Assortments		31	Pliers — All Types		16
" " " — Display Board		32	" — Slip Joint — 6" & 8"	M-345-942	18
" " " — Dolly Blocks		29	" — Water Pump	M-125-B420	17
" " " — Hammers		26	Punches — Center	M-345-594-5	18
" " " — Special		30	" — Pin or Drift (1/8 to 5/16" Dia.)		18
" " " — Spoons		28	" — Solid Type — 1/8, 3/16, 1/4"		18
Brake Bleeder Hoses — 4 to set	M-133-5343	29	Radiator Test Plugs	M-256-2004S	29
Brake Bleeder Tanks — Hydraulic		55	Rethreading Die — Axle — SAE 5/8" to 1¼"	M-255-U-130	**
" " " — " "		61	" " — Axle Hsg — 1 13/16" - 16"		**
Brake Filler Tank — Gravity	M-119-FL304	56	Rotary Brushes for Electric Drill 3/4" to 3" Dia.		17
Cabinet — Wall Type (Tool Storage)	M-233	*	Screw Drivers — all types		18
Cold Chisels — 3/8" to 1" sizes		18	Shop Desks		59
Crane — Hydraulic Floor — 1 ton & 2 ton		**	Soldering Irons — 100 W, 200 W, 300 W		24
Creepers — Red Head	M-107-RH	50	Stud Remover	M-373-SW-1	*
" — Smash Proof		51	Sun Testers —		
Drain Pan — 5 gallon capacity	M-224	52	Battery Starter	M-183-Y	**
Drift Set — Brass	M-172	14	Coil	M-183-AA	**
Drills — Jobbers & Twist — all sizes		19	Combustion	M-183-H	**
Drip Pan — 23" x 33" x 5/8" High	M-235	52	Distributor	M-183-MDT	**
Extension Cords — all types		46	Master Motor	M-183-MMT	**
Extractors — Screw & Stnd.	M-223-1816	19	Volts Ampere	M-183-CB	**
Gauge — Cylinder Indicator	M-140-452B	3	Tank — Bearing Wear Detector		168
" — Ignition Spacing	M-140-571	3	Taps & Dies — all sizes		19
" — Step Feeler (Ford Go - No Go)	M-173-460	3	Thread Restorer	M-125-TR1	17
" — Telescoping Inside-2½" to 3½"	M-140-229-D	3	" "	M-125-TR2	17
" — Thickness	M-140-172A	4	Tool Boards — Complete with Fittings		**
Hammer — Tire Changing	M-345-127	17	Tool Board Numbers and Signs		**
Hammers — Ball Pein and Cross Pein		15	Tool Toters — Cabinet Type	M-100-4360	*
" — Soft Face — Nylon		20	Tool Toters — Open Type	M-234-506	58
" — " "Copper, Lead&Rawhide		21	Torque Wrench — 0 to 300 ft. lbs.		**
Hydraulic Jack — Heavy Duty Floor	M-500	**	" " — 35 to 200 ft. lbs.	M-105-S-57	**
" " — Showroom, rubber wheels	M-500-R	**	(Reversible Ratchet — Sound Sig.)		
Impactool		44	Tube Cutter & Reamer	M-255-U-429	25
Jack—Hydr Curb Service (Removable Handle)		176	Tube Flaring Tool — Double (1/8 to 1/2" Dia.)	M-178-DF	25
Ladder — Kant Tip	M-126	28	Tube Flaring Tool — Single (1/8 to 1/2" Dia.)	M-255-U-162	25
Light — Heavy Duty Shop	M-261-GM	47	Vises — Stationary & Swivel — 3" to 8"		26
" — Junior Shop Light	M-261-GM Jr.	48	Work Benches		59
" — Undercoating	M-261-UL	49	Wrench — Cross Rim Wheel (5/8 to 7/8")		17
Micrometer — 0" — 1", 1" — 2"		2	Wrenches — Double Box End—12 point		12
" — 2" — 3", 3" — 4"		2	" — Double Hd, Open End—15° angle		14
		2	Wrench — Geared Powerend (For Trucks)	M-273-124C	33
		2	Wrenches — Open End—Box End Comb.		13
		2	" — Spark Plug Sets		9

* Appeared in Ford Service Bulletins or Advertising Brochures. Did not appear in Catalog 1, 1949.

** See Pages 104 thru 112, 1950 Catalog.

MANZEL—Authorized Tool Supplier for Ford and Lincoln-Mercury Dealers have available a complete line of factory recommended Service Equipment for fully equipping a dealership. For information on such equipment see Sec. 5 or 6, Catalog 1, 1949. We welcome questions about layout, equipment, service tools — Manzel business is to serve you at all times.



315 BABCOCK ST., BUFFALO 10, N. Y.

www.ntractorclub.com

Remover • Wheel • Steering

No. 3600-AA

*FOR 1950 Ford 1½ to 3 Ton Trucks
1950 Ford Station Wagon*

A screw jack type remover that speedily takes off steering wheels without damaging the wheel or the hollow end of the steering shaft. With the new type plastic wheels it is very important to apply the removing force directly on the metal insert otherwise the wheel can be damaged beyond useage.

Spreader • Leaf • Rear Spring

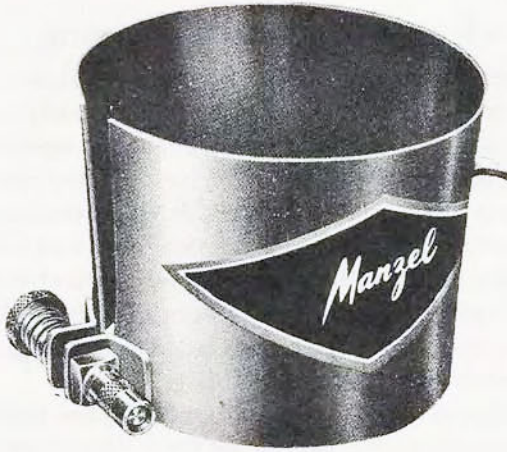
No. 5560

This tool is used in connection with a long pry bar or rod to separate the spring leaves and permit removal and replacement of the spring leaf separators or spacers. Tool is made of high tensile manganese bronze alloy arms, hardened steel parting points and forged steel puller ring. Hard bright nickel plated overall to resist corrosion.

Spreader • Leaf • Rear Spring

13.85 **No. 5560-A**

A sturdily built tool to spread the spring leaves for inserts. One turn of the hex end will drive the movable wedge home, quickly opening the leaves for fast insert replacement. The main casting is high tensile manganese bronze. The wedges and quick-acting screw are hardened steel for long life.



Compressor • Piston Ring • Engine

No. 6150

FOR

All Mercury Engines

Ford 6 & 8 Cylinder Passenger Car Engines

No. 6150-A

FOR

Lincoln 8EL Engines

Ford 8EQ Truck and 8EB Coach Engines

A funnel shaped tool to uniformly compress piston rings, for assembling piston and connecting rod assemblies in the engines. It is adjustable to both 6 & 8 Cylinder engine bore sizes. A real time saver and is factory approved.



Hook Tool • Connecting Rod • Engine

No. L-6200

FOR

1939-1948 Lincoln V-12 Engines • 1939-1948 Ford 8 Cylinder

1939-1948 Mercury V-8 Engines Passenger Car Engines

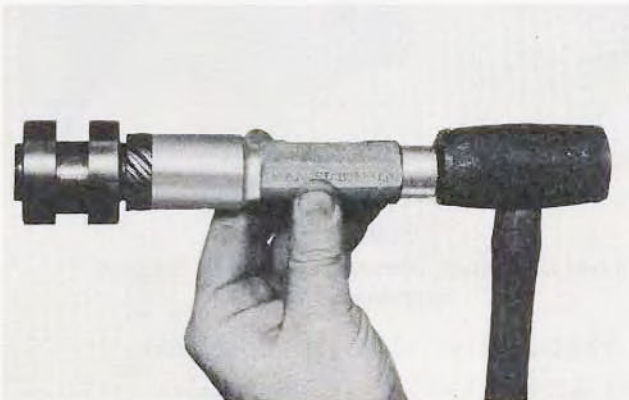
No. 6205

FOR

1949-1950 Lincoln 8EL Engine • 1948-1950 Ford 2½ and

3 Ton Truck 8EQ and Coach 8EB Engines

A time and knuckle saving tool for "pulling down" through the block, the assembled piston and connecting rod. Tool hooks onto bearing end of connecting rod. Use of this tool is not only time saving but also eliminates the need for screw drivers, wires or bars in guiding rod down to crankshaft, thus preserving polished bearing surfaces.



Replacer • Camshaft Oil Pump Gear • Engine

No. 6254-B

For fast trouble free replacement of gear and eccentric, try this tool. Made of heat treated steel, with knurled hand grip and reduced diameter knocker head. Counterbored to clear end of camshaft when replacing oil pump gear.

NOW!

Factory Approved

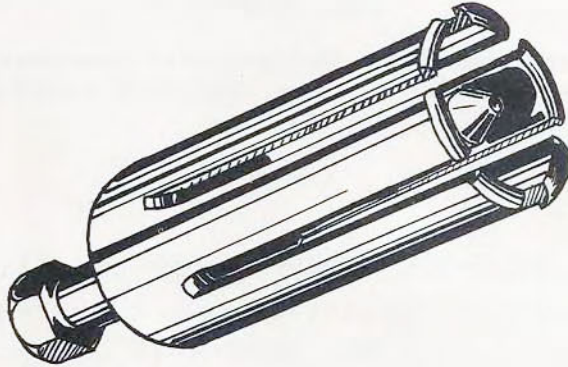
**REMOVE AND REPLACE
REAR TRANSMISSION BUSHING**
(STANDARD OR OVERDRIVE)

**49, 50, 51 Ford or Mercury
WITHOUT DISASSEMBLING
OR REMOVING UNIT FROM THE CHASSIS**

Saves Time

*A 4 Hour Job Complete in 15 Minutes
Time Saved on one job will practically pay for both tools*

**REMOVER - BUSHING & SEAL
No. 7000-G**



To Remove Seal & Bushing:-

1. Remove drive shaft by disconnecting at rear companion flange.
2. Insert Remover over transmission output shaft. Split jaws will snap into place behind bushing.
3. A speed ratchet wrench (11/16") socket on the jack screw will quickly remove bushing and grease seal simultaneously.

**REPLACER - TRANSMISSION BUSHING
No. 7000-H**



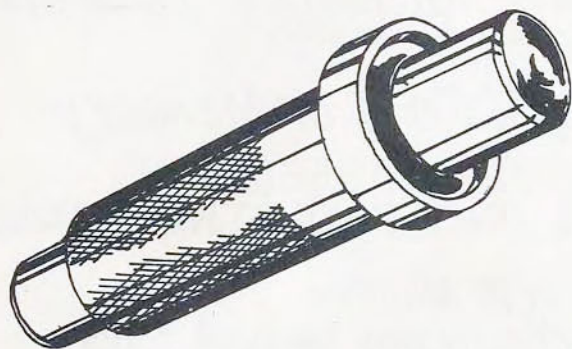
This tool is over 20 inches long to enable clearing the λ -frame member when driving the new bushing home. The working head holds and pilots the bushing accurately. The protruding driving face correctly positions bushing by acting as a stop in the grease seal counterbore.

NOTE: Install New Oil Seal. Use Tool #7657-K for Mercury or Tool #7052-A for Ford.

REAR AXLE CHANGES IN

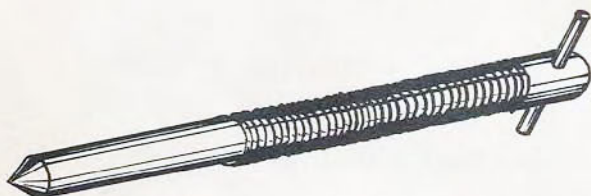
'51 FORD STATION WAGON
'51 FORD F-1 1/2 TON TRUCK
LATE '50 & '51 MERCURY

Require the following New Tool and Details of Older Tools



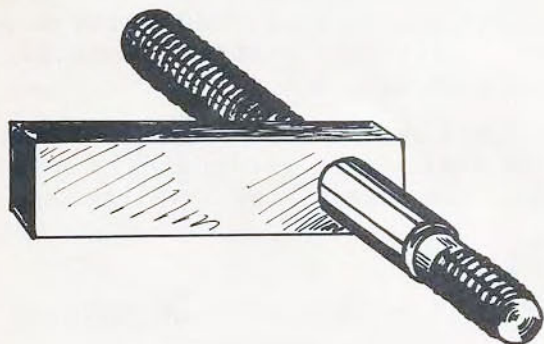
REPLACER - DIFFERENTIAL BEARING CONE
NO. 4222-J

Protruding pilot mating with the inside bore diameter assures bearing cone replacement without danger of cocking. (Bore size changed in Ring Carrier.)



SCREW - For Use With
4020-A or 4020-B Pinion Depth Gauge
No. 4020-B-5

(Note: Shallower Differential Case requires screw having longer threaded portion.)



HOLD-DOWN CLAMP - For Use With
4000-A Differential Housing Spreader
No. 4000-A-14
(2 Req'd)

(Note: Thread size on Differential Housing changed from 3/8 - 16 on '49 Mercury to 5/16 - 18 on late '50 & '51. New lugs will fit both rear axles.)



SUPPORT - DIAL INDICATOR
(For Use With 4201-A Gauge -
Ring Gear Run-out & Backlash
No. 4201-A-5

(This support will fit all '49, '50 & '51 rear axles.)