SPECIFICATIONS

FRONT SUSPENSION

MODEL APPLICATION	AC-1, AC-2, AC-3	AY-1
CAMBER		
Left	+¼° to +¾° (Preferred +½°)	
Right	0° to +½° (Preferred +¼°)	
CASTER		
Manual Steering	0° to −1°	
Power Steering	+¼° to +1¼°	
HEIGHT (Inches)		
Standard Suspension	1⅛ ± ⅛	2 ± ⅛
Heavy Duty Suspension	1⅛ ± ⅛	2⅜ ± ⅛
Limousine Suspension		2⅜ ± ⅛
Side to Side Difference (Maximum)	⅛	
STEERING AXIS INCLINATION	9°	6½°
TOE-IN	3/32 inch to 5/32 inch (Preferred ⅛ inch)	
TOE-OUT ON TURNS (When inner wheel is 20°) Outer Wheel Is	18.8°	18.5°
THREAD		
Front (inches)	62.0*	61.7
Rear (inches)	60.7	62.2
TORSION BAR		
Length (inches)	47	48.6
Diameter (inches)	0.96	1.11
With Air Conditioning	0.98	1.11
WHEEL BASE (Inches)	123.5	129

*AC-3 Models 62.25

REAR AXLE

MODEL APPLICATION	AC-1, AC-2, AC-3, AY-1
Type	Semi-Floating
Gear Type	Hypoid
Ring Gear Diameter	8.75 inch
Pinion Bearing	Tapered Roller (2)
Drive Pinion Bearing Pre-Load	20-30 in. lbs. without oil seal
Adjustment	Shim Pack
Differential Bearings	Tapered Roller (2)
Differential Bearing Adjustment	Threaded Adjuster
Drive Gear and Pinion	Serviced in Matched Sets Only
Drive Gear Runout	.005 inch (Maximum)
Drive Gear and Pinion Adjustment	
Drive Gear and Pinion Backlash	.006 to .008 inch
Differential Side Gear Clearance	.001 to .012 inch

REAR-AXLE—(Continued)

	AC-1, AC-2, AC-3, AY-1
Differential Lubricant Capacity	4 pints
Type	Multi-purpose Gear Lubricant as defined by MIL-L-2105B is used in all rear axles. Chrysler Hypoid Lubricant Part No. 1879414 is also recommended.

Anticipated Temperature Range	Viscosity	Grade
Above —10°F	SAE	90
As low as —30°F	SAE	80
Below —30°F	SAE	75

Wheel Bearing Axle Shaft and Play ..... .013 to .023 inch

AXLE RATIOS

		*Chrysler AC-1 383 Cu. In. Engine (2 BBL)	**Chrysler AC-1 383 Cu. In. Engine (2 BBL)	Chrysler AC-1 383 Cu. In. Engine (4 BBL)	Chrysler AC-2 383 Cu. In. Engine (4 BBL)	Chrysler AC-2 413 Cu. In. Engine
PASSENGER CAR						
Manual Transmission	8.75	3.23	3.23	3.23	3.23	3.23
Optional	8.75	—	—	—	—	—
Automatic Transmission	8.75	2.76	2.76	3.23	3.23	3.23
Optional	8.75	3.23	3.23	2.76	2.76	—

*Chrysler AC-3 413 Cu. In. Engine	**Chrysler AC-3 413 Cu. In. Engine	Imperial AY-1 413 Cu. In. Engine	Chrysler AC-1, 2, 3 383, 413, Cu. In. Engine Trailer Towing	*Chrysler AC-3 +413 Cu. In. Engine	**Chrysler AC-3 +413 Cu. In. Engine
—	—	—	—	—	—
—	—	—	—	—	—
(x) 2.76	2.76	2.93	3.23	3.23	3.23
3.23	(x) 3.23	—	—	2.76	2.76

* Except Station Wagon
** Station Wagon
\+ Special Cam
(x) Axle standard when air conditioning is specified. High ratios not available.

BRAKES

MODEL APPLICATION	AC-1	AC-2, AC-3	AY-1
TYPE		Duo-Servo Single Anchor	
DRUM DIAMETER	11 in.	11 in.	11 in.
(Police & Heavy Duty)	11 in.		
NUMBER OF BRAKE SHOES	8	8	8
WIDTH			
Front	3 in.	3 in.	3 in.
Rear	2½ in.	3 in.	3 in.
(Police & Heavy Duty)			
Front	3 in.		
Rear	3 in.		
Station Wagon (Front & Rear)	3 in.	3 in.	
BRAKE LINING		Bonded Moulded Asbestos	
LENGTH & COLOR CODE MARKINGS			
Front Primary		12⅛" 1 black and 1 orange mark	

BRAKES—(Continued)

	AC-1	AC-2, AC-3	AY-1
Front Secondary		12⅛" 2 red marks	
Rear Primary		12⅛" 1 black and 1 orange mark	
Rear Secondary		12⅛" 2 red marks	
(Police Special)			
Front Primary	9¼" 3 black marks		
Front Secondary	12⅛" 2 black and 1 white marks		
Rear Primary	9¼" 3 black marks		
Rear Secondary	12⅛" 2 black and 1 white marks		
Thickness (all)		$^{3}/_{16}$ in.	
WHEEL CYLINDER			
Front Wheel Cylinder Bore (all)		1⅛ in.	
Rear Wheel Cylinder Bore (all)		$^{15}/_{16}$ in.	
MASTER CYLINDER BORE (all)		1 in.	

CLUTCH

MODEL APPLICATION	AC-1, AC-2
CLUTCH	
Make	Borg and Beck
Model	1647
Engine Size	383 cu. in. (standard)
	413 cu. in. (spec. equip.)
Transmission Type	Standard 3-Speed or 4-Speed Manual
CLUTCH DISC	
Facing Type	Moulded Woven Asbestos
Outside Diameter	10½"
Thickness	.135"
Disc Springs (number)	10
Disc Spring Color	5 Green 5 Tan
CLUTCH COVER	
Pressure Springs (number)	12
Spring Color	6 Tan 6 White
Spring Pressure (lbs.)	160" ea. 245" ea.
Total Spring Pressure	
(lbs. @1½")	2511
Number of Levers	3
Pedal Free Play (at clutch fork)	$^{5}/_{32}$"

COOLING SYSTEM

MODEL APPLICATION	AC-1, AC-2, AC-3	AY-1
CAPACITY		
With Heater	17 qts.	17 qts.
Without Heater	16 qts.	16 qts.
RADIATOR TYPE	Tube and Spacer	Tube and Spacer
TRANSMISSION OIL COOLER		
Type	Concentric Tube	Concentric Tube
Location	Radiator Bottom Tank	Radiator Bottom Tank
Size		
383 Cu. In. Engine	10 inch	—
413 Cu. In. Engine	12 inch	12 inch

COOLING SYSTEM—(Continued)

	AC-1, AC-2, AC-3	AY-1
RADIATOR PRESSURE CAP		
Type	Pressure Vent	Pressure Vent
Pressure Setting		
Standard	12-15 psi.	12-15 psi.
Air Conditioning	15-16 psi.	15-16 psi.
Trailer Package	15-16 psi.	15-16 psi.
FAN—STANDARD	4 Blade, 18" Dia.	4 Blade, 18" Dia.
with Trailer Package	7 Blade, 18" Dia.	
Air Conditioning	7 Blade, 18½" Dia.	7 Blade, 18½" Dia.
Air Conditioning with Trailer Package	7 Blade, 18" Dia.	
FLUID FAN DRIVE TYPE	Silicone Fluid Filled, Thermal Control	Silicone Fluid Filled, Thermal Control
Air Conditioning	Yes	Yes
Air Conditioning with Trailer Package	No	—
THERMOSTAT		
Type	Pellet	Pellet
Setting	177°-183°F.	177°-183°F.
WATER PUMP TYPE	Centrifugal, Ball Bearing	Centrifugal, Ball Bearing
Impeller Size		
Standard and Trailer Package with or without A/C	4.38" Dia. 10 Blade	4.38" Dia. 10 Blade
A/C	3.67" Dia. 6 Blade	3.67" Dia. 6 Blade
FAN SHROUD TYPE		
Trailer Package	Full Box	Full Box
(with Air Conditioning and Trailer Package)	Full Box	Full Box

ACCESSORY BELT DRIVES

Torque Method

Torque (Ft. Lbs.) to be applied to components

ACCESSORY	USED BELT* 383-413 Cu. In.	NEW BELT 383-413 Cu. In.
Power Steering Bracket		
Solid Bracket	55	90
Self Tightening	45	45
Alternator		
With Air Conditioning	40	60
Without Air Conditioning	40	60
A/C Idler Bracket	30**	40**
Fan Idler	35	50

*Any belt that has operated for a minimum of a half-hour is considered to be used.
**"RB" Engine only.

COOLING SYSTEM—(Continued)

BELT DEFLECTION METHOD

Deflection (Inches) to be Applied at Midpoint of Belt Segment Under a 5 Pound Load

Accessory	All Models USED BELT	NEW BELT
Power Steering	3/16	3/16
Fan Belt—Idler	1/8	1/16
Alternator—Without A/C*	1/4	1/8
With A/C*	3/8	1/4

*A/C—Air Conditioning

ELECTRICAL

BATTERY

Model Usage	AC-1, AC-2 With 383 Cu. In. Engine AC-2, AC-2-300L, AC-3, AY-1 With 413 Cu. In. Engine
Capacity (Amperes)	70
Voltage	12
Number of Plates Per Cell	13
Ground Terminal	Negative
Model Identification Number	27-MB-70

STARTING MOTOR

SOLENOID SHIFT

(Reduction Gear Type)

(All Models)

Starting Motor Identification No.	2095150
Make	Chrysler Built
Voltage	12
No. of Fields	4 (3 Series, 1 Shunt)
No. of Poles	4
Brushes	4
Spring Tension	32 to 36 Ounces
Drive	Overrunning Clutch
End Play	.010"-.045"
Free-Running Test	
Voltage	11
Amperage Draw Maximum	90
Speed RPM	1925 to 2400
Lock-Resistance Test	
Voltage	4
Amperage Draw	400 to 450
Solenoid Switch	
Pull-In Coil	14.4-16.0 Amps. @ 6.0 Volts
Hold-In Coil	11.5-12.6 Amps. @ 6.0 Volts

ALTERNATOR AND ALTERNATOR VOLTAGE REGULATOR

ALTERNATORS	
Rotation	Clockwise at Drive End
Voltage	12 Volt System
Current Output	Design Controlled
Voltage Output	Limited by Voltage Regulator
Brushes (Field)	2
Condenser Capacity	.50 Microfarad plus or minus 20%
Field Current Draw —	
Rotating Rotor by Hand @ 12 Volts	2.38 to 2.75 Maximum amperes
Current Output—	
Standard	34.5 plus or minus 3 amperes*
Special Equipment,	
Heavy Duty and/or Air Conditioning	39 plus or minus 3 amperes*

*Plus or minus three ampere tolerance is provided to allow for temperature variation. Current output is measured at 1250 engine RPM and 15 volts. Voltage is controlled by variable load (carbon pile) across the battery.

ALTERNATOR VOLTAGE REGULATOR

Alternator Voltage	
Regulator Identification Number	2098300
Volts	12
Ground Polarity	Negative
Point Gap	.014 inch plus or minus .002 inch
Air Gap	.048 to .052 inch nominal setting**

**Measure gap with gauge back of stop. Contacts close with .052 inch gauge installed. Contacts open with .048 inch gauge installed.

Temperature in Degrees	47°F.	70°F.	93°F.	117°F.	140°F.	163°F.
Voltage Setting:						
Minimum Setting	13.7 to	13.6 to	13.5 to	13.4 to	13.3 to	13.2 to
Maximum Setting	14.6	14.5	14.4	14.3	14.2	14.1

IGNITION SYSTEM

VEHICLE MODEL APPLICATION	AC2, AC3 413 Cu. In. Engine 4-Barrel Carb. Power Pack
Engine Displacement	413 Cu. In.
Distributor Identification No.—Chrysler	2444683
Prestolite	IBS-4006K
Advance—Automatic (Distributor Degrees at Distributor RPM)	0° @ 325 to 475 0° to 4° @ 475 4.5° to 6.5° @ 640 9° to 11° @ 2400

IGNITION SYSTEM—(Continued)

VEHICLE MODEL APPLICATION	AC-2, AC-3 413 Cu. In. Engine 4-Barrel Carb. Power Pack	
Advance—Vacuum (Distributor Degrees at Inches of Mercury)	0° @ 7.2" to 8.9" 4.5° to 7.5° @ 12" 7.5° to 10.5° @ 14.5"	
Breaker Point Gap	.014" to .019"	
Dwell Angle	One Set Points 27° to 31° Both Sets Points 36° to 40°	
Breaker Arm Spring Tension	17 to 21.5 oz.	
Condenser Capacity	.25 to .285 mfd.	
Shaft Side Play (New or Rebuilt)	.000" to .003"*	
Shaft End Play (After Assembly)	.003" to .010"	
Rotation	Counter-Clockwise	
Timing	10° BTC	
Spark Plug Type	J10Y-Champion or P-3-3P MOPAR	
Size	14MM—⅜" Reach	
Gap	.035"	
Firing Order	1-8-4-3-6-5-7-2	
Coil	Chrysler—Prestolite	Chrysler—Essex
Identification Number	2444242	2444241
Primary Resistance @ 70-80°F.	1.65 to 1.79 ohms	1.41 to 1.55 ohms
Secondary Resistance @ 70-80°F.	9400 to 11700 ohms	9200 to 10600 ohms
Ballast Resistor—Identification No.—Chrysler Built	2095501	
Resistance @ 70-80°F.	0.5 to 0.6 ohms	
Current Draw (Coil and ballast resistor in the circuit)		
Engine Stopped	3.0 amperes	
Engine Idling	1.9 amperes	

*Service wear tolerance should not exceed .006 inch.

VEHICLE MODEL APPLICATION	AC1, (2 or 4 BBl. Carb.) AC2 4-BBl. 383 Cu. In. Engine	AC3, AY1 413 Cu. In. Engine 4-Barrel Carburetor
Engine Displacement	383 Cu. In.	413 Cu. In.
Distributor Identification No.—Chrysler Built	2444676	2444867
Advance—Automatic Distributor Degrees at Distributor RPM	0° @ 250 to 450 0° to 2° @ 450 2.5° to 4.5° @ 700 10.5° to 12.5° @ 2150	0° @ 310 to 490 0° to 2° @ 490 3.5° to 5.5° @ 800 8.5° to 10.5° @ 2300
Advance—Vacuum (Distributor Degrees at Inches of Mercury	0° @ 4.5" to 8" 6° to 9° @ 12" 9° to 12° @ 14.4"	0° @ 6" to 9" 4.5° to 7.5° @ 12" 8.25° to 11° @ 15"
Breaker Point Gap	.014" to .019"	.014" to .019"
Breaker Arm Spring Tension	17 to 20 oz.	17 to 20 oz.
Dwell Angle	28° to 32°	28° to 32°
Condenser Capacity	.25 to .285 mfd.	.25 to .285 mfd.
Shaft Side Play (New or Rebuilt)	.000" to .003"*	.000" to .003"*
Shaft End Play (After Assembly)	.003" to .017"	.003" to .017"
Rotation	Counter-Clockwise	Counter-Clockwise
Timing	10° BTC	10° BTC

IGNITION SYSTEM—(Continued)

VEHICLE MODEL APPLICATION	AC-1, (2 or 4BBL. Carb.) AC-2 4-BBL. 383 Cu. In. Engine	AC-3, AY-1 413 Cu. In. Engine 4-BBL. Carburetor
Spark Plug Type	J14Y-Champion or P-3-6P MOPAR	J14Y-Champion or P-3-6P MOPAR
Size	14MM-⅜" Reach	14MM-⅜" Reach
Gap	.035"	.035"
Firing Order	1-8-4-3-6-5-7-2	1-8-4-3-6-5-7-2
Coil	Chrysler—Prestolite	Chrysler—Essex
Identification Number	2444242	2444241
Primary Resistance @ 70-80°F.	1.65 to 1.79 ohms	1.41 to 1.55 ohms
Secondary Resistance @ 70-80°F.	9400 to 11700 ohms	9200 to 10600 ohms
Ballast Resistor—Identification No.—Chrysler Built	2095501	
Resistance @ 70-80°F.	0.5 to 0.6 ohms	
Current Draw (Coil and ballast resistor in the circuit)		
Engine Stopped	3.0 amperes	
Engine Idling	1.9 amperes	

*Service wear tolerance should not exceed .006 inch.

BULB, FUSE AND CIRCUIT BREAKER CHART

BULB	Models AC-1, AC-2 and AC-3	Model AY-1
Sealed Beam—Lo-Beam	4002	4002
Sealed Beam—Hi-Beam	4001	4001
Tail, Stop & Turn Signal	1034	1034
Park & Turn Signal	1034A	1034A
Back-Up Lamps	1073	1073
License Lamp	67	67
Trunk and/or Under Hood Lamp	1004	1004
Glove Compartment	1891	1891
Radio	1893	1893
Handbrake Indicator	158	57
Dome Lamp	1004	1004
Map Lamp	1004	1004
Ash Receiver	53X	53
Auto Pilot	57	—
Ignition Switch	57	—

BULB	Models AC-1, AC-2 and AC-3	Model AY-1
Switch Titles	—	53X
Heater and/or A.C. Control P/B	57	57
Turn Signal Indicator	158	57
High Beam Indicator	158	158
Oil Pressure Indicator	158	—
Instrument Cluster Illumination	158	158,57
Door and/or Pocket Panel and/or Ridge Lamp	90	1004
Sentry Signal	—	57
Temperature Indicator	158	—
Gear Selector with Console	57	—
Emergency Flasher	57	57
Clock	57	—
Tail Lamps	1034	67AF
Fender Mounted Turn Signals	1816, 53X	—

FUSES

Circuit	Ampere Rating
Radio	7.5 AMP
Heater or Air Conditioning	20 AMP
Accessories	15 AMP
Rear Air Conditioning	20 AMP
Cigar Lighter	20 AMP
Tail, Stop, Dome	20 AMP

Circuit	Ampere Rating
Instrument Lamps	*
Sentry Signal	5 AMP**
Gauges	5 AMP**

*5 AMP—Model AY-1
4 AMP—Models AC-1, AC-2 and AC-3
**—Model AY-1 Only

CIRCUIT BREAKERS

CIRCUIT	Location	Ampere Rating Models AC-1, AC-2 and AC-3	Ampere Rating Model AY-1
Windshield Wiper (Variable Speed)	Integral with Wiper Switch	7½	6
Windshield Wiper (Single Speed)	Integral with Wiper Switch	5	—
Lighting System	Integral with Headlamp Switch	15	15
Top Lift, Power Windows, Tail Gate and Power Seats	Behind left front kick panel	30	30
Door Locks	Behind left front kick panel	15	15

ENGINE

ENGINE	
Type	90°V
Number of Cylinders	8
Bore	
AC-1, AC-2 (383 Cu. In.)	4.25 inch
AC-2, AC-3, AY-1 (413 Cu. In.)	4.19 inch
Stroke AC-1, AC-2	3.375 inch
*AC-2, AC-3, AY-1	3.750 inch
Compression Pressure with Engine Warm, Spark Plugs Removed, Wide Open Throttle	
For 383 cubic inch engine Displacement with 9.2:1 Compression Ratio	125-155 psi.
For 383 and 413 cubic inch engine Displacement with 10.0:1 Compression Ratio	130-165 psi.
Maximum Variation Between Cylinders—Any One Engine	
383 cubic inch Engine 9.2:1	20 psi.
383 and 413 cubic inch Engine 10.0:1	25 psi.
Firing Order	1-8-4-3-6-5-7-2
Basic Timing	10° B.T.D.C.
CYLINDER NUMBERING (FRONT TO REAR)	
Left Bank	1-3-5-7
Right Bank	2-4-6-8
CYLINDER BLOCK	
Cylinder Bore (Standard)	
AC-1, AC-2	4.2495-4.2515
AC-2*, AC-3, AY-1	4.1870-4.1890
Cylinder Bore out-of-round (Maximum allowable)	.005"
Cylinder Bore Taper (Maximum allowable)	.010"
Reconditioning Working Limits (for taper and out-of-round)	.001"
Maximum Allowable Oversize (Cylinder bores)	.040"
Tappet Bore Diameter	.9050-.9058"
Distributor Lower Drive Shaft Bushing (press fit in cylinder block)	.0005-.0040"
Ream to	.4865-.4880"
Shaft to Bushing Clearance	.0007-.0027"
CRANKSHAFT	
Type	Fully Counter-Balanced
Bearings	Steel Backed Babbitt
Journal Diameter (AC-1, AC-2)	2.6245 to 2.6255"
(AC-2*, AC-3, AY-1)	2.7495 to 2.7505"
Crank Pin Diameter	2.374 to 2.375"
Maximum Out-of-Round Permissible	.001"
Number of Main Bearings	5
Clearance Desired (Bearing Installed I.D. Minus Journal O.D.)	.0005 to .0015"
Maximum Clearance Allowable	.0025"

*FirePower 360 engine, one 4-barrel carburetor, dual exhaust, hydraulic tappets, spec. cam & valve springs.

ENGINE—(Continued)

CRANKSHAFT—(Continued)	
End Play	.002 to .007"
Thrust Taken by	No. 3 Main Bearing
Finish at Rear Seal Surface	Diagonal Knurling
Interchangeability of Bearings	Upper Nos. 2, 4, 5 Lower Nos. 1, 2, 4. 5
MAIN BEARINGS (Service)	
All available in standard and the following undersizes	.001, .002, .003, .010, .012"
CONNECTING RODS AND BEARINGS	
Type	Drop Forged "I" Beam
Length (Center to Center) AC-1, AC-2	6.356 to 6.360"
AC-2*, AC-3, AY-1	6.766 to 6.770"
Weight (Less Bearing Shells) AC-1, AC-2	812 ± 4 GMS.
AC-2*, AC-3, AY-1	846 ± 4 GMS.
Bearings	Steel Backed Babbitt
Diameter and Length	2.376 x .927"
Clearance Desired (Bearing Installed I.D. Minus Journal O.D.)	.0005 to .0015"
Maximum Allowable	.0025"
Side Clearance	.009 to .017"
Bearings for Service	Standard .001, .002, .003, .010, .012" Undersize
Piston Pin Bore Diameter	1.0923 to 1.0928"
CAMSHAFT	
Drive	Chain
Bearings	Steel Backed Babbitt
Number	5
Thrust Taken By	Cylinder Block
Clearance Desired (Bearing Installed I.D. Minus Journal O.D.)	.001 to .003"
Maximum Allowable	.005"
CAMSHAFT BEARING JOURNALS	
Diameter	
No. 1	1.998 to 1.999"
No. 2	1.982 to 1.983"
No. 3	1.967 to 1.968"
No. 4	1.951 to 1.952"
No. 5	1.748 to 1.749"
CAMSHAFT BEARINGS	
Diameter (after reaming)	
No. 1	2.000 to 2.001"
No. 2	1.984 to 1.985"
No. 3	1.969 to 1.970"
No. 4	1.953 to 1.954"
No. 5	1.750 to 1.751"

VALVE TIMING	AC-1, AC-2	AC-3, AY-1	Firepower 360
Intake Opens (BTC)	13°	14°	24°
Intake Closes (ABC)	59°	62°	64°
Exhaust Opens (BBC)	59°	62°	64°
Exhaust Closes (ATC)	13°	18°	24°
Valve Overlap	26°	32°	48°
Intake Valve Duration	252°	256°	268°
Exhaust Valve Duration	252°	260°	268°

*FirePower 360 engine, one 4-barrel carburetor, dual exhaust, hydraulic tappets, Spec. Cam & Valve Springs.

ENGINE—(Continued)

TIMING CHAIN	
Adjustment	None
Number of Links	50
Pitch	.50"
Width	.88"
TAPPETS	
Type	Hydraulic
Clearance in Cylinder Block	.0005 to .0018 inch
Body Diameter	.9040 to .9045
Clearance Between Valve Stem and Rocker Arm Pad (Dry Lash)	.060-.210 inch
Oversize Available for Service	.001, .008, .030 inch
PISTONS	
Type	Horizontal Slot w/Steel Struts
Material	Aluminum Alloy Tin Coated
Land Clearance	.032" to .040"
Clearance at Top of Skirt	.0005" to .0015"
Weight (Standard Through .040" Oversize)	
AC-1, AC-2, 383 cu. in.	770 grms.
AC-2*, AC-3, AY-1, 413 cu. in.	780 grms.
Piston Length (Overall)	
AC-1, AC-2	3.84 in.
AC-2*, AC-3, AY-1, 413 cu. in.	3.96 in.
Ring Groove Depth	
No. 1—	
AC-1, AC-2—383 cu. in.	.220 in.
AC-2*, AC-3, AY-1—413 cu. in.	.216 in.
No. 2—	
AC-1, AC-2—383 cu. in.	.220 in.
AC-2*, AC-3, AC-1—413 cu. in.	.216 in.
No. 3—	
AC-1, AC-2—383 cu. in.	.208 in.
AC-2*, AC-3, AY-1—413 cu. in.	.206 in.
Pistons for Service	Standard, .005", .020", .040", Oversize
PISTON PINS	
Type	Press Fit in Rod
Diameter	1.0935 to 1.0937"
Length	3.555 to 3.575"
Clearance in Piston	.00045 to .00075"
Interference in Rod	.0007 to .0012"
Piston Pins for Service	Standard Only
Direction Offset in Piston	Toward Right Side of Engine
PISTON RINGS	
Number of Rings per Piston	3
Top—Compression Chrome	1
Middle—Compression Tin	1
Oil Steel Rails with Spacer	1
Width of Rings	
(Compression)	.0775 to .0780"
(Oil Each Rail)	.025"
Piston Ring Gap (all)	.013 to .025"

*FirePower 360 engine, one 4-barrel carburetor, daul exhaust, hydraulic tappets, spec. cam & valve springs.

ENGINE—(Continued)

RING SIDE CLEARANCE	
(Compression)	
Upper	.0015 to .0030"
Intermediate	.0015 to .0030"
(Oil)	.001 to .009"
VALVES—Intake	
Material	SAE 1041 Steel
Head Diameter	2.08"
Stem Diameter	.372 to .373"
Stem Oversizes Available for Service	Standard .005, .015, .030"
Stem to Guide Clearance	.001 to .003"
Maximum Allowable Before Reconditioning	.016**
Angle of Seat	45°
Adjustment	None
Lift All Models Except AC-2*	.389"
AC-2* only	.430"
VALVES—Exhaust	
Material	Nitrogen Treated Manganese Chromium Nickel Steel
Head Diameter	1.60"
Stem Diameter	.371 to .372"
Stem Oversize Available for Service	Standard .005 .015, .030"
Stem to Guide Clearance	.002 to .004"
Maximum Allowable Before Reconditioning	.018**
Angle of Seat	45°
Adjustment	None
Lift All Models Except AC-2*	.389"
AC-2* only	.430"

VALVE SPRINGS	AC-1, AC-2, AC-3, AY-1	AC-2*, AC-3*
Number	16	16
Free Length	2.34"	2.34" Intake 2.21" Exhaust
Load when compressed to (Valve closed)	95-105 lbs. @ $1^{55}/_{64}$"	95-105 @ $1^{55}/_{64}$"
Load when compressed to (Valve closed)	187-203 lbs. @ $1^{15}/_{32}$"	187-203 lbs. @ $1^{15}/_{32}$"
Surge Damper	None	Intake only
Valve Springs I.D.	1.010"-1.030"	1.070"-1.090" Intake 1.010"-1.030" Exhaust
Maximum allowable out of Plumb	$^1/_{16}$"	$^1/_{16}$"
Valve Spring Installed Height (spring seat to retainer)	$1^{53}/_{64}$"-$1^{57}/_{64}$"	$1^{53}/_{64}$"-$1^{57}/_{64}$"
Use $^1/_{16}$" spacer to reduce spring height when over specifications		

VALVE GUIDES	
Type	Cast in Head
Guide Bore Diameter	.374-.375" std.

*FirePower 360 engine, one 4-barrel carburetor, dual exhaust, hydraulic tappets, spec. cam & valve springs.
**With tools C-3973 & C-3339 using wobble method.

ENGINE—(Continued)

CYLINDER HEAD	
Number Used	2
Combustion Chamber	Wedge Type
Valve Seat Runout (maximum)	.002"
Intake Valve Seat Angle	45°
Intake Seat Width	.060 to .085"
Exhaust Valve Seat Angle	45°
Exhaust Seat Width	.040 to .060"
Cylinder Head Gasket Compressed (thickness)	.022"
ENGINE LUBRICATION	
Pump Type	Rotor Full Pressure
Capacity (qts.) AC-1, AC-2, AC-3	4**
AY-1	5**
Pump Drive	Camshaft
Operating Pressure at 1000 R.P.M.	45 to 65 lbs.
Oil Filter Type	Full Flow
Pressure Drop Resulting from Clogged Filter	7 to 9 lbs.

**When filter is replaced, add 1 quart.

OIL PUMP INSPECTION LIMITS FOR REPLACEMENT	
Oil Pump Cover (filter base)	.0015 inch or more
Outer Rotor Length	.943 inch or less
Outer Rotor Diameter	2.469 inch or less
Inner Rotor Length	.942 inch or less
Clearance Over Rotor—Outer	.004 inch or more
Inner	.005 inch or more
Outer Rotor Clearance	.012 inch or more
Tip Clearance Between Rotors	.010 inch or more

OVERSIZE AND UNDERSIZE

ENGINE COMPONENT MARKINGS

Engine Displacement	Condition	Identification	Location of Identification
383 cu. in. 413 cu. in.	.001" U/S Crankshaft .001" U/S Crankshaft	Maltese Cross Maltese Cross M-2-3 etc. (indicating #2 & 3 main bearing journal) and/or R-1-4 etc. (indicating #1 & 4 connecting rod journals)	Top Pad—Front of Engine Top Pad—Front of Engine Crankshaft Counterweight
— —	.020" O/S Cylinder Bores	A	Top Pad—Front of Engine
—	.008" O/S Tappets	Diamond	Top Pad—Front of Engine
—	.005" O/S Valve Stems	O.S.	Single Bolt Boss on End of the Head

FUEL SYSTEM

	Manual Transmission Newport—300	Automatic Transmission Newport—300
CARBURETOR		
Type	Dual Throat Downdraft	Dual Throat Downdraft
Model	WWC3-254	WWC3-255
Engine Displacement (cu. in.)	383	383
Bore	$1^{9}/_{16}$"	$1^{9}/_{16}$"
Venturi	$1^{5}/_{16}$"	$1^{5}/_{16}$"
Main Metering Jet (Standard) (#389323)	.068"	.067"
(One Step Lean) (#389323)	.066"	.065"
(Two Steps Lean) (#389323)	.064"	.063"
Power Jet	.045x.075"	.040x.075"
ADJUSTMENTS		
Idle Mixture (Both Screws)	1½ Turns Open	1½ Turns Open
Idle Speed (rpm)	500	500
(with Air Conditioning ON)	500	500
Fast Idle Speed (rpm)	700*	700*
Fast Idle Cam Position Adjustment	#41	#41
Accelerator Pump Travel (throttle fully closed)	$^{11}/_{32}$"	$^{7}/_{16}$"
Bowl Vent Valve (throttle at curb idle)	$^{1}/_{16}$"-$^{3}/_{32}$"	$^{1}/_{16}$"-$^{3}/_{32}$"
Vacuum Kick (drill size)	#17	#35
Float Setting	$^{5}/_{32}$"	$^{5}/_{32}$"
Unloader Adjustment (wide open kick)	$^{15}/_{64}$"	$^{15}/_{64}$"
CHOKE		
Type	Well Type	Well Type
Control	Thermostatic Coil Spring	Thermostatic Coil Spring
Setting	1 Notch Rich	1 Notch Rich

*After Approx. 500 Miles (If Necessary)

FUEL SYSTEM—(Continued)

	Manual Transmission	Automatic Transmission	Automatic Transmission	Manual Transmission	Automatic Transmission	Automatic Transmission
CARBURETOR						
Type			4 Barrel Downdraft			
Model	AFB-3855S	AFB-3856S	AFB-3858S	AFB-3859S	AFB-3860S	AFB-3871S
Engine Displacement (Cu. In.)	383	383	413	383, 413	383, 413	413
Car Model	Newport—300	Newport—300	New Yorker	300—High Performance		Imperial
THROTTLE BORE						
Primary	1 7/16"	1 7/16"	1 7/16"	1 7/16"	1 7/16"	1 7/16"
Secondary	1 9/16"	1 9/16"	1 9/16"	1 9/16"	1 9/16"	1 9/16"
MAIN VENTURI						
Primary	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"
Secondary	1 5/16"	1 5/16"	1 5/16"	1 5/16"	1 5/16"	1 5/16"
MAIN JET						
Primary	.089"	.089"	.089"	.089"	.089"	.089"
Secondary	.067"	.065"	.067"	.0689"	.0689"	.067"
LOW SPEED JET						
Primary	No. 65—.035"	No. 65—.035"	No. 65—.035"	No. 65—.035"	No. 65—.035"	No. 65—.035"
STEP-UP ROD (2 Stage)						
Standard	16-217	16-165	16-165	16-217	16-217	16-165
1 Size Lean	16-165	16-160	16-160	16-165	16-165	16-160
2 Sizes Lean	16-159	16-173	16-173	16-159	16-159	16-173
ADJUSTMENTS						
Accelerator Pump (top of plunger to air horn)	7/16"	7/16"	7/16"	7/16"	7/16"	7/16"
Fast Idle Speed Cam Position Adjustment	No. 50	No. 50	No. 50	No. 50	No. 50	No. 50
Choke Unloader	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Vacuum Kick Adjustment	1/8"	#35	#35	1/8"	#35	#35
Fast Idle Speed (r.p.m.)	700*	700*	700*	700*	700*	700*
Idle Speed (r.p.m.)	500	500	500	550	550	500
(with air conditioning ON)	500	500	500	550	550	500
Secondary Throttle Lever Adjustment	21/64"	21/64"	21/64"	21/64"	21/64"	21/64"
Secondary Throttle Lockout Adjustment	.020"	.020"	.020"	.020"	.020"	.020"
Float Setting	7/32"	7/32"	7/32"	7/32"	7/32"	7/32"
Float Drop	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Idle Mixture (both screws open)	1-2 turns	1-2 turns	1-2 turns	1-2 turns	1-2 turns	1-2 turns
CHOKE						
Type	Well	Well	Well	Well	Well	Well
Control	Coil Spring	Coil Spring	Coil Spring	Coil Spring	Coil Spring	Coil Spring
Setting	2 Notches Rich	2 Notches Rich	2 Notches Rich	On Index	On Index	2 Notches Rich

*After Approx. 500 Miles (If Necessary)

FUEL SYSTEM—(Continued)

	Manual Transmission Newport—300	Automatic Transmission Newport—300
CARBURETOR		
Type	Dual Throat Downdraft	Dual Throat Downdraft
Model	BBD-3849S	BBD-3850S
Engine Displacement (cu. in.)	383	383
Bore	$1^{9}/_{16}$"	$1^{9}/_{16}$"
Venturi	$1^{5}/_{16}$"	$1^{5}/_{16}$"
Main Metering Jet		
Standard	120-304S	120-304S
One Step Lean	120-296S	120-296S
Two Steps Lean	120-302S	120-302S
One Step Rich	120-306S	120-306S
Step-Up Wire (Standard)	75-1651	75-1652
Diameter (2 Stage)	.033 x .027"	.035 x .027"
ADJUSTMENTS		
Accelerator Pump Setting	1" ± $^{1}/_{64}$"	1" ± $^{1}/_{64}$"
Float Setting (at Center of Floats)	$^{5}/_{16}$"	$^{5}/_{16}$"
Vacuum Kick Adjustment	#11	#22
Fast Idle Cam Position Adjustment	#35	#35
Bowl Vent Valve (at curb idle)	$^{1}/_{16}$"	$^{1}/_{16}$"
Choke Unloader	¼"	¼"
Idle Mixture Screws (Turns Open)	¾"	¾"
Idle Speed RPM (Curb Idle)	500	500
Air Conditioning ON)	500	500
Fast Idle Speed RPM	600*	700*
CHOKE		
Type	Well	Well
Control	Thermostatic Coil Spring	Thermostatic Coil Spring
Setting	2 Notches Rich	2 Notches Rich

*After Approx. 500 Miles (If Necessary)

FUEL PUMP

	AC-1, AC-2, AC-3, AY-1
Make	Carter
Model	M-3672S
Type	Diaphragm
Number of Valves	2
Driven by	Camshaft
Pump Pressure	3½ to 5 psi

PROPELLER SHAFT AND UNIVERSAL JOINTS

MODEL APPLICATION	AC-1	AC-2	AC-3
PROPELLER SHAFT			
*Length—Inches			
Manual Transmission 3-Speed	60.91	60.91	—
Station Wagon	58.85	—	—

PROPELLER SHAFT AND UNIVERSAL JOINTS—(Continued)

MODEL APPLICATION	AC-1	AC-2	AC-3
PROPELLER SHAFT			
*Length—Inches			
Manual Transmission 4-Speed	58.85	58.85	
Suburban	56.90		
Automatic Transmission	58.40	58.40	55.60
Station Wagon	56.48		53.66
Diameter—Inches			
Manual Transmission	3.25	3.25	
Automatic Transmission	3.00	3.00	3.25
UNIVERSAL JOINTS			
Type—			
Front (Manual Transmission)		Ball and Trunnion	
Front (Automatic Transmission)		Cross and Roller	Constant Velocity
Rear		Cross and Roller	

*From centerline of trunnion pin or front yoke rear bearing bores to centerline of rear bearing bores.

MODEL APPLICATION	AY-1
PROPELLER SHAFT	
Length—Inches	
Front Shaft—Cross Centerline to End of Shaft	26.59
Rear Shaft—End of Spline to Rear Cross Centerline	40.81
Diameter—Inches	
Front Shaft	2.25
Rear Shaft	3.00
UNIVERSAL JOINTS	
Front	Cross and Roller
Center	Constant Velocity
Rear	Constant Velocity

SPRINGS AND SHOCK ABSORBERS

SPRINGS

MODEL APPLICATION	AC-1	AC-2	AC-3	AY-1
TYPE		Semi-Elliptic		
NO. OF LEAVES				
Std.	5½	6½	6½	6
Heavy Duty	6½*	6½*	6½*	7
Town and Country (Standard)	6½		6½	
(Heavy Duty)	6½*		6½*	
Police & Taxi	6½*	6½*	6½*	
Width (inches)		2.50		
Length (inches)	62	62	62	60
Pivot (front)		Rubber Bushing		
Shackle (rear)		Side Strapped with Rubber Bushed Bolts		

*Zinc Interleaf

SPRINGS AND SHOCK ABSORBERS—(Continued)

MODEL APPLICATION	AC-1	AC-2	AC-3	AY-1
SHOCK ABSORBERS				
TYPE		Oriflow Double Acting Hydraulic		

STEERING (MANUAL, POWER AND PUMPS)

MANUAL STEERING GEAR	
Type	Recirculating Ball Nut
Ratio	24 to 1
Cross Shaft Bearings	3-Needle Bearings
Wormshaft Bearings	2-Caged Ball Bearings
Cross Shaft Adjusting Screw End Play	.000-.004 Inch
Worm Bearing Preload (in car)	1½ to 4½ in. lbs. to Keep Wheel Moving
Worm Bearing Preload (out of car)	1⅛ to 4½ in. lbs. to Keep Wheel Moving
Sector Mesh Adjustment Preload Torque— Includes Worm Bearing Preload (in car)	8¼ to 11¼ in. lbs. Pull through high spot
Sector Mesh Adjustment Preload Torque— Includes Worm Bearing Preload (out of car)	7⅞ to 11¼ in. lbs. Pull through high spot
POWER STEERING GEAR	
Ratio	16 to 1
Fluid Capacity of Hydraulic System	2 Quarts
Type of Fluid	Power Steering Fluid Part No. 2084329
Steering Arm Length (Centerline to Centerline of Holes)	Approximately $6^{7}/_{16}$ inches
POWER STEERING PUMP	
Type	Constant Displacement
Maximum Pump Pressure	
AC-1, AC-2 with .96 pump	950 to 1000 psi
AC-2, AC-3 with 1.2 pump	1000 to 1100 psi
AY-1 with 1.2 pump	1200 to 1300 psi
Maximum Fluid Flow	2¼ gallons
Type of Fluid	Power Steering Fluid Part No. 2084329

TRANSMISSIONS

MANUAL A-745 3-SPEED
A-833 4-SPEED

MODEL APPLICATION	AC-1	AC-2	AC-2
ENGINE (CU. IN.)	383	383-413	383-413
TRANS. MODELS	A-745	A-745	A-833
GEAR RATIO			
First	2.55	2.55	2.66
Second	1.49	1.49	1.91

TRANSMISSIONS—(Continued)

MODEL APPLICATION	AC-1	AC-2	AC-2
ENGINE (CU. IN.)	383	383-413	383-413
TRANS. MODELS	A-745	A-745	A-833
Third	1.00	1.00	1.39
Fourth	—	—	1.00
Reverse	3.34	3.34	2.58
LUBRICANT			
Capacity	Approx. 5 Pts.		Approx. 7½ Pts.
Type	Auto. Trans. Fluid Type AQ-ATF Suffix "A"		Warm Climate Multi-Purpose Gear Oil SAE 140 Cold Climate Multi-Purpose Gear Oil SAE 80 or 90 Auto. Trans. Fluid AQ-ATF Suffix "A"
GEAR TYPE	Helical		Helical
TOLERANCES			
Second Speed Gear End Play	.004" to .014"		—
Countershaft Gear End Play	.0045" to .028"		.0045 to .028"
Clutch Housing Face Run-Out	.006" Max.		.006" Max.
Clutch Housing Bore Run-Out	.008" Max.		.008" Max.
Synchronizer Float	.050" to .090"		—

TORQUEFLITE TRANSMISSION A-727-B

TYPE	Automatic Three Speed with Torque Converter
TORQUE CONVERTER	
Diameter	11¾ inches
OIL CAPACITY—TRANSMISSION AND TORQUE CONVERTER	19½ pts. Automatic Transmission Fluid AQ-ATF Suffix "A"
COOLING METHOD	Water-Heat Exchanger
LUBRICATION	Pump (Rotor Type)
CLUTCHES	
Number of Front Clutch Plates	4
Number of Front Clutch Discs	4
Number of Rear Clutch Plates	3
Number of Rear Clutch Discs	4
GEAR RATIOS	
1—Low	2.45 to 1
2—Second	1.45 to 1
D—Drive	1 to 1
R—Reverse	2.20 to 1
N—Neutral	—
FRONT-REAR PUMPS	
Type	Gear (Rotary)
End Clearance	.001 to .0025 inch
DRIVE TRAIN END PLAY	.028 to .072 inch (Imperial) .036 to .084 inch (Chrysler)

TRANSMISSIONS—(Continued)

CLUTCH PLATE CLEARANCE	
Front Clutch	.024 to .123 inch
Rear Clutch	.026 to .054 inch
SNAP RINGS	
Front and Rear Clutches	
Rear Snap Ring (Selective)	.060 to .062 inch .074 to .076 inch .088 to .090 inch
Output Shaft (Forward End)	.048 to .052 inch .055 to .059 inch .062 to .066 inch
Output Shaft Bearing (Imperial)	.086 to .088 inch
Output Shaft Bearing (Chrysler)	
Front and Rear Snap Ring	.092 to .094 inch
THRUST WASHERS	
Reaction Shaft Support to Front Clutch Retainer (Selective)	.061 to .063 inch (Green) .084 to .086 inch (Red) .102 to .104 inch (Yellow)
Output Shaft to Input Shaft	.062 to .064 inch
Sun Gear Driving Shell Thrust Plate (Steel)	.034 to .036 inch
Rear Planetary Gear to Driving Shell	.062 to .064 inch
Front Planetary Gear to Annulus Gear Support	.062 to .064 inch
Front Annulus Gear Support to Driving Shell	.062 to .064 inch
Front Clutch Retainer to Rear Clutch Piston Retainer	.061 to .063 inch (Green)

SPEEDOMETER PINION CHARTS

MANUAL TRANSMISSIONS

(A-745—3-SPEED, A-833—4-SPEED)

OUTPUT SHAFT DRIVE GEAR—8 TEETH

Tire Size	Axle Ratios—Number of Pinion Gear Teeth and Color	
	A-745—3.23:1	A-833—3.23:1
8.25-14	19-Red	19-Dark Blue
8.55-14	19-Red	19-Dark Blue
9.00-14	18-Natural	18-Dark Purple

TORQUEFLITE TRANSMISSION

(A-727-B)

(OUTPUT SHAFT DRIVE GEAR—8 TEETH)

Tire Size	Axle Ratios—Number of Pinion Gear Teeth and Color		
	Chrysler		Imperial
	2.76:1	3.23:1	2.93:1
8.25-14	17-Orange	19-Dark Blue	—
8.55-14	16-Brown	19-Dark Blue	—
9.00-14	16-Brown	18-Dark Purple	—
9.15-15	—		16-Brown

WHEEL, BEARINGS AND TIRES

MODEL APPLICATION	AC-1	AC-2	AC-3	AY-1
WHEELS				
Type		Steel Disc.		
Rim		Drop Center—Safety Rim		
Size—Standard	14 x 5½K	14 x 6K	14 x 6K	15 x 6L
—Special	14 x 6K	—	14 x 6½K	—
—With Air Conditioning	14 x 6K	—	14 x 6K	—
—Special	14 x 6½K	—	—	—
—Station Wagon	14 x 6K	—	14 x 6½K	—
—Special	14 x 6½K	—	—	—
No. of Wheel Nuts	5	5	5	5
Stud Size	½"-20	½"-20	½"-20	$^{9}/_{16}$"-18
Stud Hole Circle	4½"	4½"	4½"	5½"
Wheel Nut Torque	65 ft-lb.	65 ft-lb.	65 ft-lb.	65 ft-lb.
Bearing Nut Torque (Wheel Spinning)	90 in-lb.	90 in-lb.	90 in-lb.	90 in-lb.
TIRES				
Type		Super Cushion—Tubeless		
Size—Standard (ply)	8.25-14 (2)	8.55-14 (2)	8.55-14 (2)	9.15-15 (4)
—Special	8.55-14 (2)			
	8.85-14 (4)	8.85-14 (4)	8.85-14 (4)	—
—With Air Conditioning	8.55-14 (2)	—	8.85-14 (4)	
—Special	8.85-14 (4)	—	—	—
—Station Wagon	8.55-14 (2)	—	8.85-14 (4)	—
—Special	8.85-14 (4)	—	—	—
TIRE PRESSURE—COLD				
Pounds—Front	24	24	24	22
—Station Wagon	22	—	22	24 (Convertible)
—Rear	22	22	22	22
—Station Wagon	26	—	26	24 (Convertible)

Rear tire pressure on heavily loaded station wagons should be increased 6 psi from that shown above.
For sustained highway speeds, long trip driving, or trailer towing increase inflation pressure 4 psi front and rear from specified pressures.
Oversize tires on Station Wagon use same pressure as specified. For 15" tires used in place of 14" tires use 24 psi front and rear.

AIR CONDITIONING

COMPRESSOR

	AY-1 Models
Location	Left of Center on Cylinder Block
Type	2 Cylinder "V" Type
Bore	$2^{5}/_{16}$ inch
Stroke	$1^{5}/_{16}$ inch
Displacement	11.02 cubic inches
Type Valve	Reed Type
Speed (depends on axle ratio and tire size)	Approximately 1250 rpm at 25 mph
Oil Capacity (Refrigerant Oil)	11 ounces
Clutch	Stationary Coil
Mufflers	In Compressor Discharge Line and In Compressor Suction Line

AIR CONDITIONING—(Continued)

CONDENSER

Location	Front of Radiator

RECEIVER—DRIER—STRAINER

Type	Cylindrical Steel Container
Location	Front of Radiator

REFRIGERANT

Refrigerant	Refrigerant 12
Total Charge	
Front Unit Only	4 lbs.
Dual Units	4 lbs. 14 ozs. to 5 lbs. 2 ozs.

BLOWER MOTOR

Type	Centrifugal
Location	Dash Panel
Capacity	250 to 265 cubic feet of air per minute of high speed
Current Draw	Approximately 14-17 amps. at 14 Volts

TIGHTENING REFERENCE

FRONT SUSPENSION

	FOOT POUNDS	INCH POUNDS
BALL JOINT (Chrysler)	125 (Min.)	
(Imperial)	150 (Min.)	
Stud Nut—Lower	115	
—Upper (Chrysler)	100	
(Imperial)	135	
CONTROL ARMS		
Bumper Nut		200
Pivot Shaft Nut—Outer (Chrysler)	180	
(Imperial)	200	
—Inner (Imperial)	100	
Cam Bolt Nut	65	
IDLER ARM to Bracket Bolt Nut	45	
to Center Link Nut	40	
SHOCK ABSORBER—Front		
Lower Nut	55	
Upper Nut	25	
STEERING ARM to Center Link Nut	40	
STEERING KNUCKLE		
Lower Bolt Nut	80	
Upper Bolt Nut	55	
STRUT		
Ball Nut (Imperial)	100	
Front Bushing Nut	40	
Rear Nut (Chrysler)	100	
SWAY ELIMINATOR SHAFT		
Link to Frame Nut		100
Link Cushion Strap Bolt Nut (Chrysler)	30	
Shaft to Strut Strap Nut (Chrysler)	30	

REAR AXLE

Axle Shaft Nuts	145 (Min.)
Brake Support Plate to Housing Mounting Bolt Nuts	30 to 35
Differential Bearing Cap Bolts	90
Differential Carrier to Axle Housing Bolt Nuts	45
Rear Axle Drive Gear to Case Bolts	60
Rear Axle Drive Pinion Companion Flange Nut	240 (Min.)
Spring Clip (U-Bolts) Nuts	50
Propeller Shaft Bolts	
Front — AC-1 (Manual)	20
AC-2 (Manual)	20
AC-1 (Automatic)	none
AC-2 (Automatic)	14
AC-3 (Automatic)	25
AY-1 (Automatic)	14

REAR AXLE—Continued

	FOOT POUNDS	INCH POUNDS
Rear — AC-1 (Manual)	14	
AC-2 (Manual)	14	
AC-1 (Automatic)	14	
AC-2 (Automatic)	14	
AC-3 (Automatic)	14	
AY-1 (Automatic)	25	

BRAKES

SERVICE BRAKES		
Axle Shaft Nut	145	
Brake Hose (front)	25	
Brake Support Nuts (front-upper)	55	
Brake Support Nuts (front-lower)	80	
Brake Support Nuts (rear)	35	
Brake Tube Fitting (rear wheels)		95
Master Cylinder Mounting Nuts		100
POWER BRAKES		
Master Cylinder Mounting Nuts		200
Power Brake Mounting Nuts		200
Push Rod to Pedal Linkage Nut	30	
Guide Retaining Bolts		80-100
Clevis Lock Nut	5-10	
Vacuum Cylinder	15-20	

CLUTCH

Clutch Housing to Engine Bolts	30	
Clutch Cover to Flywheel Bolts (⅜")	30	
Clutch Pan Bolts		100
Clutch Fork Pivot Bolts	15	
Flywheel Bolt Nut	60	
Transmission to Clutch Housing Bolts	50	
Torque Shaft Pivot (engine side)	40	
Torque Shaft Pivot Bracket Bolts (frame side)	15	

COOLING SYSTEM

Water Pump Bolts	30
Fan Attaching Bolts	16-18
Thermostat Housing Bolts	30

ENGINE

A/C Compressor to Engine Bolt	30
Alternator Adjusting Strap Bolt	15
Alternator Adjusting Strap Mounting Bolt	30
Alternator Bracket to Manifold Bolt	50

ENGINE—Continued

	FOOT POUNDS	INCH POUNDS
Alternator Mounting Nut	20	
Camshaft Lock Bolt	35	
Carburetor to Manifold Nut	7	
Connecting Rod Nut	45	
Cylinder Head Bolt	70	
Chain Case Cover Bolt	15	
Clutch Housing Bolt	30	
Crankshaft Rear Bearing Seal Retainer	30	
Crankshaft Vibration Damper Bolt	135	
Cylinder Head Cover Stud and Nut		40
Distributor Clamp Bolt	15	
Engine Front Mounting to Frame Bolt	75	
Engine Front Mounting to Block Nut	55	
Engine Front Mounting to Frame Stud	20	
Exhaust Manifold Nut	30	
Exhaust Pipe Flange Nut	40	
Exhaust Pipe Clamp Bolt	20	
Exhaust Pipe Support Clamp Bolt	20	
Fan Attaching Bolt	15-18	
Fan Belt Idler Pulley Nut	45	
Fan Belt Idler Pulley Bracket Bolt	30	
Fuel Pump Attaching Bolt	30	
Intake Manifold Bolt	50	
Main Bearing Cap Bolt	85	
Manifold Heat Control Counterweight Bolt		50
Oil Pan Drain Plug	20	
Oil Pan Bolt	15	
Oil Pump Cover Bolt	10	
Oil Pump Attaching Bolt	35	
Oil Filter Attaching Stud	30	
Rocker Shaft Bracket Bolt	30	
Spark Plug	30	
Starter Mounting Bolt	50	
Torque Converter Housing Bolt	30	
Transmission Case to Block	30	
Vibration Damper Belt Pulley Bolts	15	
Valve Tappet Cover End Bolt	9	
Water Pump to Housing Bolt	30	
Water Pump Housing to Cylinder Block Bolt	30	

EXHAUST SYSTEM

Converter Housing Bracket Screw	15	
Exhaust Manifold Nuts	30	
Exhaust Pipe Ball Joint Bolt	20	
Exhaust Pipe Support Clamp Bolt		95
Hanger "U" Bolt Nuts		100
Heat Control Valve Counterweight Clamp Bolt		50
Exhaust Pipe Flange Bolt Nut	35	

PROPELLER SHAFT AND UNIVERSAL JOINTS

	FOOT POUNDS	INCH POUNDS
Front—Companion Flange Nuts	30	
Front—Transmission Yoke Clamp Bolts		170
Front—Slip Spline Yoke Stud Nuts		300
Rear—Pinion Yoke Clamp Bolts		170
Rear—Pinion Yoke Stud Nuts		300
Center Bearing Bracket Bolt Nuts	32	
Rebound Bumper Plate Bolts		200
Rear Spring U-Bolt Nuts	55	
Control Strut Hanger Bolt Nuts	35	

SPRINGS AND SHOCK ABSORBERS

REAR SPRINGS	
Center Bolt Nut	10
Front Hanger Nut	30
Pivot Bolt or Nut	125
Rear Hanger	30
Shackle Nut	40
Strut Bushing Bolt Nut (Imperial)	65
Ranger Bolt Nut (Imperial)	35
"U" Bolt Nut	45
SHOCK ABSORBERS	
Front Lower Bolt Nut	55
Upper Shaft Nut	25
Rear Lower Stud Nut	50
Upper Bolt Nut	70

STEERING (MANUAL, POWER AND PUMPS)

MANUAL STEERING GEAR	
Cross Shaft Cover Bolt	25
Steering Arm Nut	120
Gear Assembly to Frame Bolt	80
Steering Wheel Nut	24
Cross Shaft Adjusting Screw Lock Nut	35
POWER STEERING GEAR	
Pressure Control Valve Body Screws	10
Pump Inlet Fitting	30
Reservoir to Pump Body Bolts	10-15
Steering Wheel Nut	24
Steering Arm Nut	120
Steering Gear Housing to Frame Bolt	80
Steering Valve End Plug	25
Steering Valve Body Attaching Bolts	15
Steering Column Support Nut	110 to 200
Steering Gear Shaft Cover Nut	110 to 200
Steering Gear Shaft Adjusting Screw Lock Nut	50
POWER STEERING PUMP	
Pump Inlet Fitting	30
Pump to Pump Bracket Bolts	30
Reservoir to Pump Body Bolt	10-15

TRANSMISSION

	FOOT POUNDS	INCH POUNDS
MANUAL A-745 3-Speed		
Front Bearing Retainer Bolts	35	
Extension Housing Bolts	50	
Gearshift Operating Lever Nuts		216
Mainshaft Flange Nut	175	
Transmission to Clutch Housing Bolts	50	
Transmission Cover Retaining Bolts		144
Transmission Drain Plug		300
MANUAL A-833 4-Speed		
Extension Housing to Case Bolts	35-45	
Drive Pinion Bearing Retainer Bolts	35	
Transmission to Clutch Housing Bolts	50	
Crossmember Attaching Bolts	50	
Shift Mechanism Pivot Bolt	55	
Shift Lever Bolts	30	
Companion Flange Nut	175	
Gearshift Housing Bolts		144
Gearshift Operating Lever Nuts		216
Transmission Drain Plug		300
TORQUEFLITE A-727-B		
Kickdown Band Adjusting Screw Lock Nut	29	
Kickdown Lever Shaft Plug		150
Reverse Band Adjusting Screw Lock Nut	35	

TRANSMISSION—Continued

	FOOT POUNDS	INCH POUNDS
Cooler Line Fitting		75
Control Cable Adjusting Wheel Bolt		40
Converter Drain Plug	14	
Converter Drive Plate to Crankshaft Bolt	55	
Converter Drive Plate to Torque Converter Bolt	—	270
Extension Housing to Transmission Case Bolt	24	
Extension Housing to Insulator Mounting Bolt	35	
Extension Housing—Crossmember to Frame Bolt	75	
Front Oil Pump Housing to Transmission Case Bolt		150
Governor Body to Support Bolt		100
Neutral Starter Switch	25-30	
Oil Filler Tube Bracket Bolt		150
Oil Pan Bolt		150
Output Shaft Flange Nut	175	
Overrunning Clutch Cam Set Screw	40	
Parking Lock Cable Locking Bolt		10
Parking Sprag Cover Bolt		150
Pressure Test Take-Off Plug		75
Reaction Shaft Support to Front Oil Pump Bolt		150

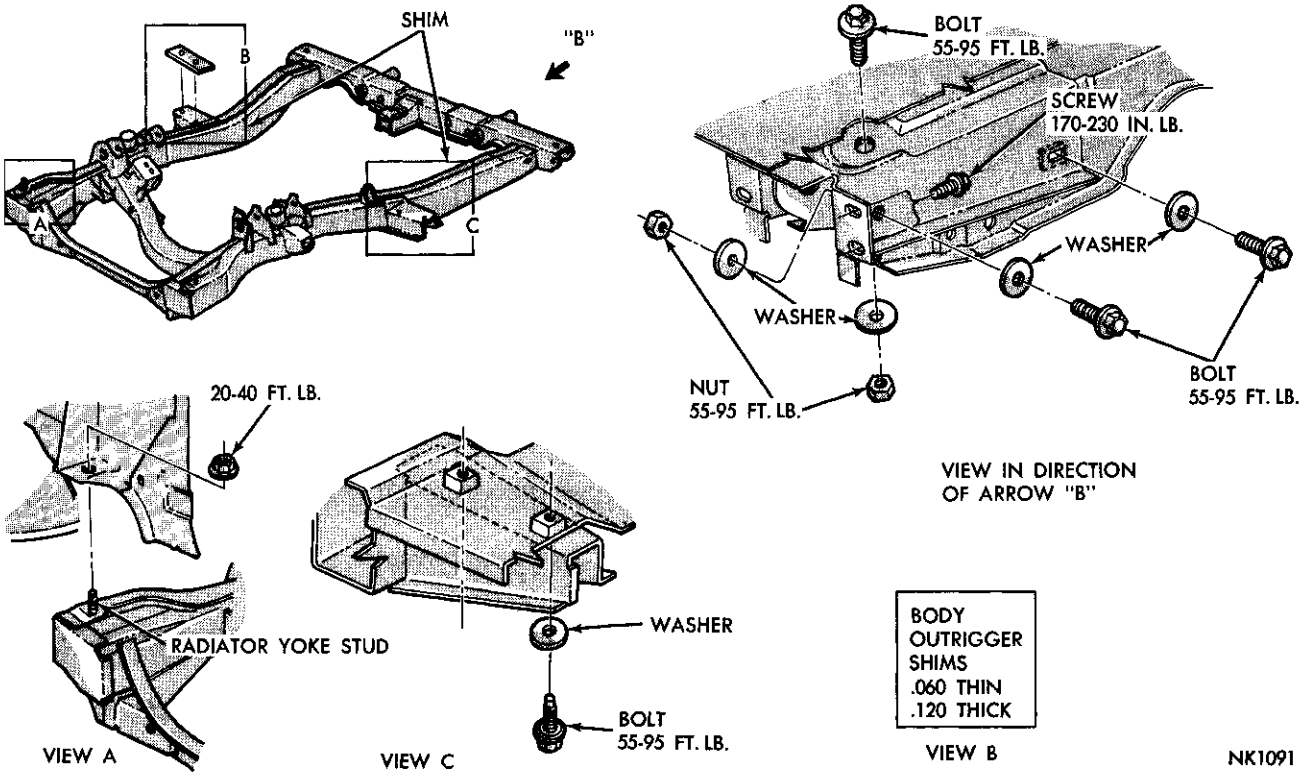

Fig. 1—Body to Stub Frame Mounting

TRANSMISSION—Continued

	FOOT POUNDS
Rear Oil Pump Cover Bolt	140
Transmission to Engine Bolt	25-30
Valve Body Screw	28
Valve Body to Transmission Case Bolt	100
Speedometer Cable Clamp Screw	150

WHEELS, BEARINGS AND TIRES

Wheel Bearing Nut (With Wheel Spinning)	90
Wheel Stud Nut	65

BODY AND SHEET METAL

	FOOT POUNDS
Body Mounting Tightening References—See Figures 1 and 2	
Door Hinge Bolts	180
Deck Lid Hinge Bolts	180
Fender Attaching Bolts	60
Hood Hinge Bolts	180
Hood Hinge to Cowl Bolts	180
Hood Latch Bolts	180

AIR CONDITIONING

Compressor Bearing Housing Bolt	10-13
Compressor to Bracket Bolt	50

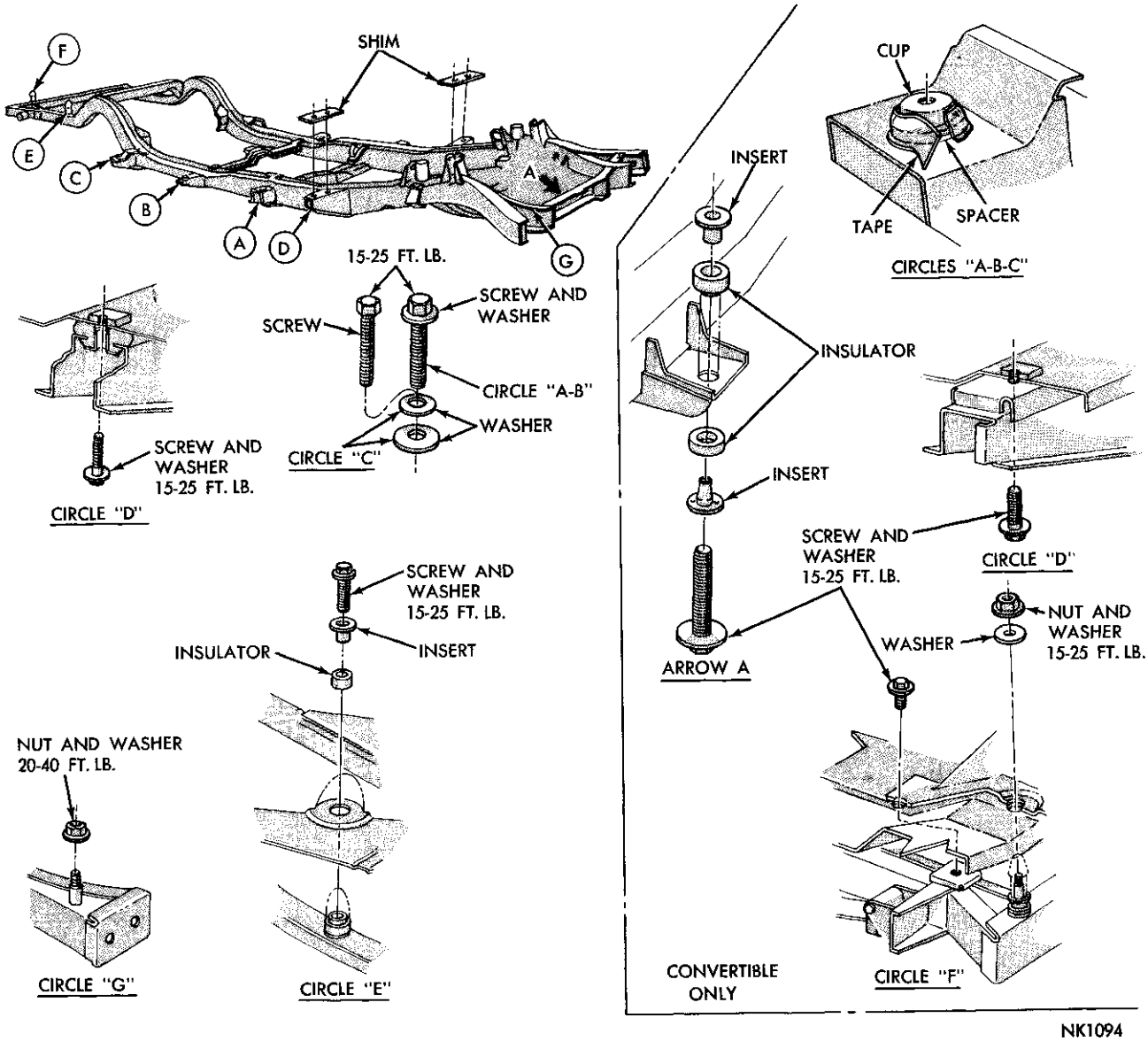

Fig. 2—Body to Frame Mounting (Imperial)

AIR CONDITIONING—Continued

	FOOT POUNDS	INCH POUNDS
Compressor Connecting Rod Screw		52-56
Compressor Cylinder Head Cover Bolt	23-27	
Compressor Cylinder Head Cover (Nameplate) Bolt	20-24	
Compressor Discharge Adapter Bolt	4-18	
Compressor to Engine Bolt	30	

AIR CONDITIONING—Continued

	FOOT POUNDS	INCH POUNDS
Compressor Oil Pump Cover Bolt	10-13	
Compressor Oil Pump	15-19	
Compressor to Strut Bolt	30	
Compressor Suction Adapter Bolt	10-14	
Magnetic Clutch to Compressor Bolt	20	

"O" RING NUT TIGHTENING REFERENCE

Line Size	Foot-Pounds
¼ SAE	12-14
⅜ SAE	20-25
½ SAE	30-35
⅝ SAE	55-65