

TO: ALL DODGE DEALERS

Attached is the Confidential Price Bullentin for the 1966-275 Horse Power Dart Drag Package. Listed below are specifications concerning the equipment which is standard in this package.

Model: Dart G T - Two-Door Hardtop- Body Model Code L023
Classification: "D" Stock conforming to NHRA & AHRA rules
Engine: 273 Cubic Inch Four-Barrel Assembly consisting of the following special items:

1. Special Camshaft (Camcraft #2843919)
2. Special Valve Springs (Racer Brown Outers #VR-18X)
3. Modified Full-Breathing Intake Manifold
4. Special Holley Carburetor (Model 4160 modified)
5. New Air Cleaner
6. Special Clutch (Weber Speed Equipment, Santa Anna, Calif.)
7. Special 4.86 Sure-Grip 8 - 3/4" Rear Axle
8. Exhaust Headers by Doug of California with "Y" Pipe Adapter for standard exhaust

This modified Dart will be a strong competitor against the 271 H. P. Mustang in "D" Class sanctioned drag race competition. It is expected a well-prepared and set-up car will reach E. T.'s in the low 13's and high 12's at speeds upwards of 108 M.P.H. in sanctioned acceleration trials.

These cars will be built and available in late April. Contact your Regional Office for procedures in ordering this model.

Because of the expected use, cars equipped with this package are sold "AS IS", without any warranty coverage whatsoever. A warranty disclaimer letter, in the attached form, signed by the customer must be forwarded to the Regional Office before shipment can be made.

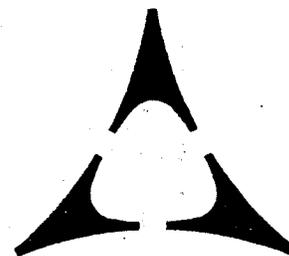
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TECHNICAL SERVICE BULLETIN

Dodge

DART
CORONET
POLARA
MONACO



SERVICE DEPARTMENT

April 18, 1966

This bulletin covers a general description, preparation for performance competition and detailed specifications on the 1966 Maximum Performance Dart Drag Package. The first four digits of the car serial number L023 will identify these cars.

Engine

The engine is basically the 273 cu. in. hi-performance model, modified for maximum performance.

Intake Manifold and Carburetion

The standard 4 bbl. carburetor intake manifold is used with an adapter plate added in order to use a Holley 4160, list 3778, 1 11/16" bore carburetor.

Exhaust System

Special tubing (Doug Headers) is used, replacing the standard manifolds and adapted to the single exhaust system.

Valve Gear

The standard mechanical valve gear is used. Heavier valve springs are used, however, which permit higher engine speeds.

Camshaft

A 284° duration camshaft is used. The intake opening is at 30° BTC; closing at 74° ABC; exhaust opening at 74° BBC; closing at 30° ATC. The valve overlap is 60°.

Ignition

A dual point ignition distributor without a vacuum advance is used. The centrifugal advance is calibrated to advance the ignition at low RPM.

D66-HP-1

MISCELLANEOUS

Maximum
Performance
273 Engine
Dart Drag
Package

MODEL:
1966 Dart GT
Two-Door
Hard-Top

OF INTEREST TO:	
DEALER	
MANAGER	
SERVICE MGR.	
PARTS MGR.	
TECHNICIANS	

Transmission and Clutch

A four speed manual transmission and a special (Weber Speed Equipment) clutch are used. The transmission gear ratios are 2.66 in first, 1.91 in second, 1.39 in third, 1.00 in fourth and 2.58 in reverse.

Rear Axle

A sure-grip 8 3/4" diameter ring gear axle is used. The standard ratio is 4.86 to 1 with optional ratios available through Chrysler Corporation dealers and Chrysler Motors parts distributors.

Suspension

Heavy duty suspension, including special rear springs and heavy duty shock absorbers for optimum wheel control, are standard equipment.

CAR OPERATION FOR BEST PERFORMANCE

For peak performance while participating in acceleration trials, the following practices are recommended:

Spark Plugs

For street use and short bursts of wide open throttle operation, use Champion N9Y. For extended operation at high power output, colder spark plugs must be used.

Ignition System and Valves

Inspect the following items frequently: valve clearance, spark plug condition, high tension wires and spark timing. This is necessary because the full output of the engine may not be obtained with faulty plugs, weak ignition and/or insufficient valve clearance, even though misfiring or backfiring are not observed. However, excessive valve gear noise and valve breakage may result from clearance settings that are too high.

Engine Operation

Do not operate the engine over 7400 r.p.m.

Gasoline

Use high octane premium gasoline.

Engine Oil

Use only high detergent and additive engine oil. The oil must meet mil spec MS-DG. Use 30 weight viscosity oil for increased bearing life.

Front Suspension

The front end alignment should be set at the correct specifications (Refer to Service Manual).

Brakes

Adjust brakes to eliminate any possible drag.

Tires

Use large special drag racing tires of high Butyl content on the rear since they improve traction on most surfaces. Increase air pressure in the front tires to reduce rolling resistance. Do not exceed 45 p.s.i.

THE FOLLOWING MODIFICATIONS ARE SUGGESTED FOR INCREASED PERFORMANCE AND LONGEVITY. THESE SUGGESTIONS ARE OFFERED AS INFORMATION ONLY AND IF FOLLOWED ARE TO BE CONSIDERED THE OPTION OF THE OWNER AND TO BE PERFORMED AT HIS EXPENSE.

Compression Ratio

The combustion chamber volume and piston-to-block deck height should be toward the factory tolerance giving maximum allowable compression ratio. Minimum cylinder head volume is 57.3 cc. When milling your cylinder heads to obtain the minimum combustion chamber volume, you must mill off .0065" per cc. of chamber volume. The piston-to-cylinder block deck height is .095" minimum, .129" maximum (above the block).

Valve Springs

The valve springs should be set to the minimum specified heights (1.55"). Maximum valve closed spring load is 150# at 1.55". Maximum valve open spring load is 313# at 1.05".

The following valve grind specifications should be used with the standard valves. Do not sink the valves in an attempt to equalize combustion chamber volumes. Sinking the valves disturbs the air flow characteristics of the valve port and seat with a subsequent horsepower loss.

- | | | | |
|----|--------------------------|-------|---------------|
| 1. | Intake valve face angle | ..... | 45° |
| 2. | Intake seat angle | ..... | 45° |
| 3. | Intake seat width | ..... | .050" - .070" |
| 4. | Seat approach angle | ..... | 70° |
| 5. | Exhaust valve face angle | ..... | 45° |
| 6. | Exhaust seat angle | ..... | 45° |
| 7. | Exhaust seat width | ..... | .050" - .070" |
| 8. | Seat approach angle | ..... | 70° |

The valve seat should be located as close to the outer edge of the valve as possible.

Oil Pan

The oil pan sump should be lowered as much as possible. You may also modify your present pick-up and baffle the pan to prevent oil slosh during acceleration and deceleration.

Pistons

Install right bank Power Pak pistons in left bank and vice versa. This means the notch in the edge of the piston top will now be towards the rear of the engine. The piston pin is normally off-set to reduce piston slap. Reversing the off-set (by reversing the piston) will reduce engine friction. Piston to bore clearance of .003 to .0035 inches will be adequate.

Crankshaft

For high engine speed operation, it may be advisable to install a 318-3 truck crankshaft, Part No. 2268810; rod bearings, Part No. 2421305; and main bearings, Part No. 2421330 (#1, 2, 4), Part No. 2495094 (#3), Part No. 1643151 (#5). This is a hardened and balanced crankshaft and tri-metal bearings. It would also be advisable to have connecting rods magna-glowed and shot peened. Remember to install upper main shells in the caps also.

Crankshaft Main Bearings

Install upper main bearing shells (with oil groove) in both the block and main bearing caps. This allows greater oil flow through the mains and provides more oil to the rod bearings.

Assembly Procedure

When the engine is being assembled, all parts must be kept immaculately clean and MoPar Engine Oil Supplement, Part No. 1879406, should be used.

Water Pump

Install air conditioning water pump impeller, Part No. 2463643.

Exhaust Crossover

Block off exhaust crossover in intake manifold. This can be done by either putting shims in the gaskets or by brazing a plate into both sides of the crossover in the intake manifold.

Engine Balance

It is not necessary to balance a production engine for use on the drag strip. Production balance is more than adequate.

Ignition Distributor

The distributor mechanical advance curve has been modified to provide full advance at 1000 to 1200 RPM. Maximum total spark advance should be 35°. Do not use the vacuum advance.

Carburetor Air Cleaner

Do not remove the air cleaner base. The carburetor was calibrated for maximum power with the air cleaner base attached.

Rear Springs

Install rear springs, Part No. 2495060 Right, Part No. 2495061 Left. Install rear shock absorbers, Part No. 2275848. These are the super stock rear springs and shocks and will provide much improved wheel control off the line.

Wheels and Tires

The Barracuda Formula "S" Wheel, Part No. 2534885, is standard with this package. This is a 14" x 5.5" wide wheel and will allow the use of larger, more commonly available "cheater" slicks.

The following modifications may be incorporated in the 273 engine for use in Modified Production, Factory Experimental, and/or Gas class.

Carburetion

Install the two, four barrel, two level aluminum intake manifold available from the Edelbrock Equipment Company, 4921 W. Jefferson Boulevard, Los Angeles 16, California. Block off the exhaust crossover in the intake manifold.

Install two Carter 3853S (273 manual) or 3854S (273 automatic) four barrel carburetors (MoPar Part No. 2532309). Remove the step-up springs from the primary metering rod step-up pistons in the front carburetor only. Install Carter No. 120-176 (.0635") secondary jets in the rear carburetor only. As the velocity valve weights are much too heavy for this application, it would be advisable to block the velocity valves open. These are the ONLY carburetor modifications necessary for optimum performance with this package.

Camshaft

Install the Racer Brown ST-12 camshaft. This cam should be installed with the overlap split-centerline #1 intake lobe 108° past TDC exhaust stroke. Set lash at .017" and .030" cold. Maximum engine speed is 7500 RPM with this car.

213 555 1272
297 7210

2066
C 2155 #

Use Racer Brown valve springs as follows:

Outer	Racer Brown	VR-18X
Inner	Racer Brown	VR-56

Set installed spring height at 1.68" to 1.70". The outer valve spring surge damper may not fit over the inner valve spring seat on the 273 cylinder head. Either reduce the inner spring seat diameter or remove one coil of the surge damper.

Use Chrysler Hemi tappets with the Racer Brown cam (Part No. 2402288). You may also use the standard 273 tappet. If the standard tappet is used, it would be advisable to hone the cylinder block tappet bores .0005" oversize.

Compression Ratio

You may raise the compression ratio to 12.5 to 1 by milling the cylinder heads to a minimum of 51.3 cc. Extreme care must be taken with the head gaskets when installing the 12.5 to 1 cylinder heads. It is difficult to keep the gaskets from blowing at this ratio.

It will be necessary to deepen the valve pockets in the pistons when running the Racer Brown cam and 12.5 ratio heads. A minimum of .060" piston to valve clearance should be maintained.

Larger Valves

It is possible to install larger valves in the 273 cylinder heads. Use the following procedure:

A. Exhaust Valve

1. Use Chrysler 392 exhaust valve, P/N 1634744.
2. Reduce valve head diameter to 1.65".
3. Exhaust valve face angle should be 45°.
4. Exhaust valve seat specifications:
 - a. Valve seat angle - 45°.
 - b. Valve seat width - .050" - .070".
 - c. Valve seat bottom dress - 70°.
 - d. Top dress with 0° stone to provide some clearance between top of seat and cast chamber.
5. Smooth transition from the 70° bottom dress to the port with a hand grinder.

B. Intake Valve

1. Use Chrysler 392 intake valve, Part No. 1821241.
2. Shorten valve. 060".
3. Intake valve face angle should be 30° .
4. Intake valve seat specifications:
 - a. Valve seat angle - 30° .
 - b. Valve seat width - .050" - .070".
 - c. Valve seat bottom dress angles are 40° , 50° , 60° , 70° .
Each bottom dress step should be .070" to .090" wide.
 - d. Top dress with 0° stone to provide some clearance between top of seat and cast chamber.
5. Smooth transition from the 70° bottom dress to the port with a hand grinder.

The large radius approach to the intake valve seat provides a greater power gain than opening up the throat below the valve seat and using a tighter radius approach.

The valve seat should be located as close to the outer edge of the valve as possible.

When installing the larger valves, it will be necessary to notch the edge of the bore for valve clearance. The valve pockets in the pistons will also have to be enlarged. A minimum of .080" clearance must be maintained between the valves and the pistons and cylinder bores. It is most important to check this clearance. Inadequate clearance will result in bent valves. When notching the bores, be careful not to grind outside the head gasket beads.

DETAILED SPECIFICATIONS

ENGINE

Type	90°V
Number of Cylinders.....	8
Bore	3.625"
Stroke Displacement.....	3.31"
Compression Ratio.....	10.5 to 1
Compression Pressure with engine warm spark plugs removed--wide open throttle.....	120-150 psi
Maximum variation between cylinders (any one engine).....	25 psi
Firing Order.....	1-8-4-3-6-5-7-2
Basic Timing.....	10° BTC

COMPRESSION RATIO SPECIFICATIONS

Combustion Chamber Volume.....Min.57.3 cc; Max.63.3 cc

Note: To reduce the volume of the combustion chamber 1 cc. .0064" must be milled from the head surface. The cylinder head surface finish should be 100-120 micro-inches. For each .010" removed from the cylinder head .0085" must be removed from each intake port side of the intake manifold and .0116" from the front and rear stock rail. The holes must also be elongated.

Distance from top of piston to block deck..... Min. .095"; Max. .129"

CYLINDER NUMBERING (Front to Rear)

Left Bank	1-3-5-7
Right Bank	2-4-6-8

CYLINDER BLOCK

Cylinder Bore (Standard).....	3.625"-3.6270"
Cylinder Bore Out-of-Round (Max. allowable before reconditioning).	.005"
Cylinder Bore Taper (Max. allowable before reconditioning).	.010"
Reconditioning Working Limits (For taper and out-of-round).....	.001"
Maximum Allowable Oversize (Cylinder Bore)	.040"
Tappet Bore Diameter.....	.9050"-.9058"
Distributor Lower Drive Shaft Bushings (Press fit in block).....	.0005"-.0040"
(Ream to).....	.4865"-.4880"
Shaft to Bushing Clearance.....	.0007"-.0027"

PISTONS

Type Material.....	Autothermic Alloy Tin Coated
Clearance in Bore (with .0015 x 1/2" feeler stock)	5-10 lbs. Pull
Land Clearance (Diametral).....	.029"-.034"
Clearance at Top of Skirt.....	.0005"-.0015"
Weight (Std. through .040" oversize).....	569 gms.
Piston Length (Overall).....	3.19"
Ring Groove Depth	
No. 1 .....	.189"
No. 2 .....	.189"
No. 3 .....	.187"
Pistons for Service.....	Std. .005", .020" .040" Oversize

PISTON PINS

Type	Full Floating
Diameter .....	.9841"-.9843"
Length	2.810"-2.820"
Clearance in Piston (Light Thumb Push @ 70°F) .....	.0000"-.0005"
End Play .....	.004"-.026"
Clearance in Rod.....	.0000"-.0005"
Pins for Service.....	Std. .003", .008" Oversize

PISTON RINGS

Number of Rings per Piston.....	3
Compression.....	2
Oil	1
Oil Ring Type.....	3-Piece Steel Rail Chrome-Face
Ring Width	
Compression.....	.0775"-.0780"
Oil-Steel Rails.....	.025"
Ring Gap	
Compression.....	.010"-.020"
Oil-Steel Rails.....	.015"-.055"
Ring Side Clearance	
Compression.....	.0015"-.0030"
Oil-Steel Rails.....	.0002"-.005"

CONNECTING RODS

Length (Center to Center).....	6.123"
Weight (Less Bearing Shells).....	726 gms.
Side Clearance (Two Rods).....	.006"-.014"
Piston Pin Bore Diameter.....	1.027"-1.039"

CONNECTING ROD BUSHING

Type	Steel Backed Bronze
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CONNECTING ROD BEARINGS

Type	Steel Backed Grid
Diameter and Width.....	2.126" x .824"
Clearance Desired.....	.0005"-.0015"
Maximum Allowable.....	.0025"
Bearings for Service.....	Std., .001", .002", .003", .010", .012"

CRANKSHAFT

Type	Fully Counter-Balanced
Bearings	Steel Backed Babbitt
Thrust Taken By.....	No. 3 Main Bearing
End Play .....	.002"-.007"
Maximum Allowable.....	.010"
Diametral Clearance Allowed.....	.0005"-.0015"
Diametral Clearance Desired.....	.0025"
Finish at Rear Oil Seal Surface.....	Diagonal Knurling

MAIN BEARING JOURNALS

Diameter	2.4995"-2.5005"
Maximum Allowable Out-of-Round and/or Taper	.001"
Bearings for Service Available in Standard	
and the Following Undersizes.....	.001", .002", .003", .001", .012"

CONNECTING ROD JOURNALS

Diameter	2.124"-2.125"
Maximum Allowable Out-of-Round and/or Taper	.001"

CAMSHAFT

Drive	Chain
Bearings	Steel Backed Babbitt
Number	5
Diametral Clearance.....	.001"-.003"
Maximum Allowable Before Reconditioning.	.005"
Thrust Taken By.....	Thrust Plate
End Play .....	.002"-.006"
Maximum Allowable.....	.010"

CAMSHAFT JOURNALS

Diameter	No. 1	1.998"-1.999"
	No. 2	1.982"-1.983"
	No. 3	1.967"-1.968"
	No. 4	1.951"-1.952"
	No. 5	1.5606"-1.5615"

CAMSHAFT BEARINGS

Diameter	No. 1	2.000"-2.001"
	No. 2	1.984"-1.985"
	No. 3	1.969"-1.970"
	No. 4	1.953"-1.954"
	No. 5	1.5625"-1.5635"

VALVE TIMING

Intake Opens (BTC).....	30°
Intake Closes (ABC).....	74°
Exhaust Opens (BBC).....	74°
Exhaust Closes (ATC).....	30°
Valve Overlap.....	60°
Intake Valve Duration.....	284°
Exhaust Valve Duration.....	284°

TIMING CHAIN

Number of Links.....	68
Pitch .....	.375"
Width .....	.625"

TAPPETS

Type	Mechanical
Body Diameter.....	.9040"-.9045"
Clearance in Block.....	.0005"-.0015"
Service Tappets Available.....	Std., .001", .008", .030"
Operating Clearance (Hot).....	.013" Intake
Clearance Between Valve Stem and Rocker Arm	.021" Exhaust

CYLINDER HEAD

Valve Seat Run-Out (Maximum).....	.002"
Intake Valve Seat Angle.....	45°
Seat Width (Finish).....	.060"-.085"
Exhaust Valve Seat Angle.....	45°
Seat Width (Finish).....	.040"-.060"
Cylinder Head Gasket (Thickness Compressed)	.028"

VALVE GUIDES

Type	Cast in Head
Guide Bore Diameter.....	.374"-.375" Std.

VALVES (INTAKE)

Head Diameter.....	1.780"
Length (to Center of Valve Face).....	5.00"
Stem Diameter (Standard).....	.372"-.373"
Stem to Guide Clearance.....	.001"-.003"
Maximum Allowable.....	.017"
Face Angle.....	45°
Valve for Service.....	Std., .005", .015", .030"
Lift (Zero Lash).....	Oversize Stem Diam. .495"

VALVES (EXHAUST)

Head Diameter.....	1.563"
Length (to Center of Valve Face).....	4.45"
Stem Diameter (Standard).....	.3715"
Stem to Guide Clearance.....	.002"-.004"
Maximum Allowable.....	.017"
Face Angle.....	45°
Valve for Service.....	Std., .005", .015", .030"
Lift (Zero Lash).....	Oversize Stem Diam. .505"

VALVE SPRINGS

Number	16
Free Length.....	2.00"
Load When Compressed to (Valve Closed).....	150 lbs. @ 1.55"
Load When Compressed to (Valve Closed).....	313 lbs. @ 1.05"
Surge Damper.....	None
Maximum Allowable Out of Plumb.....	1/16"
Valve Spring Installed Height (Spring Seat to Retainer).....	1.55"
Use 1/16" Spacer to Reduce Spring Height When Over.....	1.55"

ROCKER SHAFT ASSEMBLY

Clearance Between Rocker Arm and Shaft.....	.001"-.003"
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ENGINE LUBRICATION

Pump Type	Rotary Full Pressure
Capacity (Qts.).....	4 (When Filter Element is Replaced Add 1 Quart)
Pump Drive.....	Camshaft
Minimum Pump Pressure @ 500 R.P.M.....	20 PSI
Operating Pressure at 1000 R.P.M.....	45-65 lbs.
Pressure Drop Resulting from Clogged Filter	7-9 lbs.
Oil Filter Type.....	Full Flow

OIL PUMP--INSPECTION LIMITS FOR REPLACEMENT

Oil Pump Cover.....	.0015 inch or more
Outer Rotor Length.....	.825 inch or less
Outer Rotor Diameter.....	2.469 inch or less
Inner Rotor Length.....	.825 inch or less
Clearance Over Rotors (Outer).....	.004 inch or more
Clearance Over Rotors (Inner).....	.004 inch or more
Outer Rotor Clearance.....	.012 inch or more
Tip Clearance Between Rotors.....	.010 inch or more

FUEL PUMP

Pressure	6 to 8 psi
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CARBURETOR

Type	4 Bbl. Downdraft
Model	Holley 4160 List 3778
Bore - Primary.....	1 11/16"
Secondary.....	1 11/16"
Primary Main Metering Jet.....	#75 (2 Used)
Venturi - Primary.....	1 3/8"
Secondary.....	1 7/16"
Power Valve Channel Restriction	
Fuel Inlet Side.....	.093"
Opposite Fuel Inlet Side.....	.093"
Primary Fuel Level.....	1/2"
Secondary Fuel Level.....	5/8"
Secondary Main Metering Restriction	
Fuel Inlet Side.....	#45 Drill .0635"
Opposite Fuel Inlet Side.....	#41 Drill .073"
Secondary Throttle Operation.....	Vacuum Diaphragm
NOTE: Primary and Secondary Throttle Blades Vertical With W.O. Throttle	
ADJUSTMENTS:	
Idle Mixture.....	1/3 Turn out
Idle Speed (Engine Hot).....	750 to 1000 RPM
Accelerator Pump.....	Cam in #1 Position

IGNITION

Distributor Part No. - Chrysler Built.....	2642242
Prestolite.....	IBS-4013A Modified
Advance-Centrifugal (Distributor Degrees at Distributor RPM).....	25° @ 500 to 600
Contact Gap.....	.014" to .019"
Dwell Angle.....	One Set Points 27° to 31° Both Set Points 36° to 40°
Contact 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	Clockwise
Timing	10° BTC
Spark Plug Type.....	N9Y Champion, P-6-2P Mopar
Size	14MM-3/4" Reach
Gap .....	.035"
Firing Order.....	1-8-4-3-6-5-7-2
Coil	Chrysler-Prestolite or Chrysler-Essex
Identification No....	2444242
Primary Resistance @ 70-80°F.....	1.65 to 1.79 Ohms
Secondary Resistance@ 70-80°F.....	9400 to 11700 Ohms
Ballast Resistor, Part No. - Chrysler Built.....	2095501
Resistance @ 70-80°F.....	0.5 to 0.6 Ohms
Current Draw (Coil and Ballast Resistor in Circuit)	
Engine Stopped.....	3.0 Amperes
Engine Idling.....	1.9 Amperes

CLUTCH

Free Play..... 1/2" Min. 3/4" Max.

REAR AXLE

Type Sure-Grip Semi-Flating Hypoid
 Ring Gear Diameter..... 8.75 Inch
 Ratio 4.86 to 1
 Pinion Bearings
 Type Tapered Roller
 Number Used..... 2
 Adjustment..... Select Shims
 Pre-Load Torque (Seal Removed)..... 20 to 30 Inch-Pounds
 Differential Bearings
 Type Tapered Roller
 Number Used..... 2
 Adjustment..... Adjusting Nut
 Ring Gear and Pinion
 Serviced In..... Matched Sets
 Ring Gear Runout..... .005" Max.
 Back Lash..... .006 to .008"
 Differential Side Gear Clearance
 With Gauge..... .001 to .012"
 Wheel Bearings
 Type Tapered Roller
 Adjustment..... Adjusting Nut
 End Play..... .013 to .023
 Lubrication
 Capacity..... 4 Pints
 Type..... Sure-Grip Differentials use only the special Multi-Purpose Gear Lubricant intended for use in limited slip differentials. Such a lubricant is available under Part No. 2585318, Special Sure-Grip Lubricant.

<u>Anticipated Temperature Range</u>	<u>Viscosity Range</u>
Above 10°F.	SAE 90
As Low As 30°F.	SAE 80
Below 30°F.	SAE 75

TRANSMISSION (4-Speed Manual)

Transmission Model..... A-833 4 Forward Speeds
 Gear Ratio
 First 2.66
 Second 1.91
 Third 1.39
 Fourth 1.00
 Reverse 2.58
 Gear Type Helical (Except Reverse)
 Clearances
 Countershaft Gear End Play..... .015" to .029"
 Clutch Housing Face Run-Out..... .006" Max.
 Clutch Housing Bore Run-Out..... .008" Max.
 Lubricant - Capacity..... Approx. 8½ Pts.
 Type..... Multi-Purpose Gear Oil SAE 140 (Warm Climate) -----
 Multi-Purpose Gear Oil SAE 80 or 90, or Automatic
 Transmission Fluid "AQ-ATF" Suffix "A" (Cold Climate)

BOLT AND NUT TORQUE SPECIFICATIONS

273 CUBIC INCH ENGINES

	<u>Torque</u> <u>Foot-Pounds</u>	<u>Thread</u> <u>Size</u>
Connecting Rod Nut--Plain.....	45	3/8-24
Cylinder Head Bolt.....	85	1/2-13
Main Bearing Cap.....	85	1/2-13
Camshaft Lockbolt.....	35	
Camshaft Thrust Plate 273 Cubic Inch.....	210 in.-lbs.	5/16-18
318 Cubic Inch.....	15	5/16-18
Chain Case Cover (Cast).....	30	3/8-16
Clutch Housing Bolt.....	30	3/8-16
Clutch Housing Vent Hole.....	100 in.-lbs.	1/4-20
Clutch Housing Pan Drain Plug.....	35	
Crankshaft Bolt.....	135	3/4-16
Cylinder Head Cover.....	36 in.-lbs.	
Engine Front Mounting		
To Engine Bosses.....	45	
To Frame.....	85	
To Frame Bracket Stud.....	20	
Engine Rear Mounting		
To Transmission.....	35	
To Frame.....	35	
Flywheel Housing to Cylinder Block.....	50	
Flywheel Housing Cover.....	100 in.-lbs.	1/4-20
Intake Manifold 273 Cubic Inch.....	35	3/8-16
318 Cubic Inch.....	40	3/8-16
Oil Level Indicator Tube Bracket.....	130 in.-lbs.	1/4-28
Oil Pan Drain Plug.....	20	1/2-20
Oil Pan Bolt.....	15	5/16-18
Oil Pump Cover Bolt.....	15	1/4-20
Oil Pump Attaching Bolt.....	35	3/8-16
Oil Filler Tube.....	30	
Rocker Shaft Bracket Bolt.....	15	5/16-18
Spark Plug.....	30	14 mm
Vibration Damper Bolt.....	200 in.-lbs.	5/16-24
Brake Support Plate to Housing Mounting		
Bolt Nuts.....	30 to 35	
Differential Carrier to Axle Housing		
Bolt Nuts.....	45	
Differential Bearing Cap Bolts.....	90	
Rear Axle Drive Gear to Case Bolts.....	55	
Rear Axle Drive Pinion Companion Flange Nut	240 (Min.)	
Rear Spring "U" Bolt Nuts.....	50	
Propeller Shaft Bolts - Rear.....	15	
Wheel Stud Nuts.....	65	

R. H. Kline

R. H. Kline
Manager-Service
DODGE DIVISION

(DART) - SUPER STOCK 66 ENGINE - SPECIAL ORDER S. C. 699

SPECIAL PRICE LINE BODY MODELS

FOR

DART - 2-Dr Hardtop (LP-23)

(Equipped with Super Stock 66 Engine)

GENERAL INFORMATION:

Sales will order and sell this package as a new price line as follows:

Dart - 2-Dr Hardtop - LO-23

Sales will convert all of the LO-23 orders to the Premium Line Code LP-23 for production scheduling prior to submitting orders to Data Processing. The following Sales Codes must be included on all orders:

- S.C. 364 - Super Stock 66
- S.C. 699 - Special Order
- S.C. 32 - Engine Code
- S.C. 393 - 4 Sp M/Trans
- S.C. 408 - Sure Grip Axle

- S.C. 409 - Special Order Axle
- S.C. 624 - Heavy Duty Suspension
- S.C. 554 - Delete Rr Seat Belts
- S.C. 21 - Tires 6.95x14, BSW Rayon 2-Ply
- S.C. P4H - Trim Code (Red)
- Paint Code - WW1
- No Other Special Equipment Codes Permitted

Data Processing must convert (with the aid of S.C. 364) after scheduling the Body Code LP-23 to LO-23. This conversion model LO-23 will show on the Final Broadcast Sheet, Certificate, Vehicle Serial Number Plate, Invoicing, and Monroney Label. The Body Code Plate and all other records will remain as a "p" Line.

NOTE: This price line is to be built by Special Order. The Sales Code 364 is being used for conversion purposes only and will not appear on Body Code Plate; however, it will appear on the Final Broadcast Sheet. The use of the above Engine and Transmission Codes will broadcast incorrect Build Codes.

REFER TO SPECIAL ORDER FOR ALL INFORMATION.

CHANGE DATA: