

SONIC

RACING PRODUCTS



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Driveline Packages • Clutch Assemblies • Flexplates / Flywheels • Release Bearings

Introduction & Table of Contents

Sonic Racing Products...

Tilton quality and performance for the short track racer.

The Sonic Racing Products line from Tilton is a full range of popular driveline components designed and optimized specifically for short track racing. These are high quality products at a competitive price. Best of all, Sonic Racing Products offer reliability, performance advantages and convenience features previously not available in their price range. Sonic Racing Products-the new standard for short track racing!

What make Sonic Racing Products superior?

- MACH-Series clutches benefit from the same race-proven engineering designs that have made Tilton OT-Series clutches one of the most successful clutches in racing.
- Rear-mount starter packages that offer the lowest inertia 5.5" clutch-flywheel-assemblies available.
- Steel bellhousing is the lightest formed-steel bellhousing on the market at 24 lbs. It provides the most ground clearance of any one-piece formed steel 153-tooth Chevrolet housing... no need to cut the bottom out of it.
- Hydraulic release bearings machined from high-quality aluminum, feature a reliable monoseal design and the highest quality bearings. Bolts directly to bellhousing and self-adjusts for clutch wear.
- Heat-treated billet steel flywheels offer high strength and light weight.
- Large dealer network to provide quick service and get you the parts you need
- Quality technical service is readily available to get you on the track quickly. Simply call us at (805) 688-2353 or email us at technical@tiltonracing.com.

Sonic Racing Products is making the move as the preferred choice of short track racers for clutch and driveline components. Why run dated and substandard parts? Choose Sonic Racing Products for the performance, quality and reliability that will maximize your driving talent.

Sonic Racing Products is a proud contingency sponsor of:



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Driveline Package Selection

Every Sonic driveline package have one thing in common... to be the best of their type. A prime ex ample is Sonic' s Rear-mount Starter Driveline Package.

Clutch Flywheel-Assembly

The rear mount starter bellhousing with a 5.5" clutch is the standard for late model short track pavement racing and the Sonic package is a thoroughly modern design. The lightweight aluminum bellhousing features a starter pocket moved closer to the engine block which allows the use of a 4140 heat treated alloy steel one-piece diameter flywheel and eliminates the need for a clutch cover mounted ring gear. This also permits a flywheel diameter of only 8.92", a considerable reduction from the 9.25" diameter of the obsolete clutch cover mounted designs. This contributes to a clutch-flywheel-assembly that offers a significant reduction in Moment-of-Inertia (MOI) for quicker acceleration, which is especially important for crate engine classes.

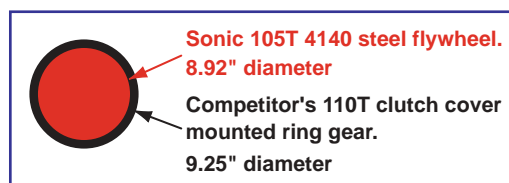


Figure 1

Bellhousing

Sonic bellhousings are blueprinted for to parallel and concentric with .005" Total Indicated Runout (T.I.R.) . Accurate driveline alignment prevents premature clutch failure and power loss. (See Figure 2) In addition, Sonic bellhousings are engineered to provide the highest levels of rigidity. A rigid bellhousing reduces power loss through the driveline. A bellhousing that is not rigid will flex and cause increased friction among driveline components, resulting in power loss.

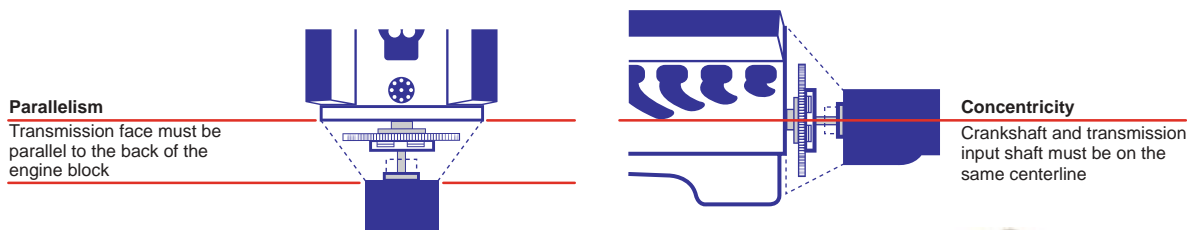


Figure 2

Starter

A benefit of having the starter mount closer to the engine is that the starter may be removed for service without removing the transmission, regardless of which transmission is being used.

Hydraulic Release Bearing

The bellhousing mounted self-adjusting hydraulic release bearing features pre-set clearances, which upon after initial set-up and bleeding, does not require adjustment to compensate for clutch disc pack wear.



Clutch Selection

The general rule in selecting a racing clutch is to choose the smallest clutch diameter allowed by sanctioning body rules, determine how many discs it takes to meet your engine' s torque capacity, and add one additional plate for heat capacity and durability reasons. Below, is a list of factors to consider when choosing the right clutch.

What does the rules state?

Most sanctioning body rules specify a minimum clutch diameter. The minimum clutch diameter rule is based on the diameter of the friction/ driven discs, not the diameter of the entire clutch. This rule keeps the mass moment-of-inertia to a minimum.

What limits clutch performance?

Torque capacity and heat capacity are the two main factors that limit clutch performance.

Torque capacity refers to the engine torque that the clutch will hold before slippage occurs. Generally, a Sonic Mach-Series clutch does not slip until the torque is 50% above the rated torque capacity, making the rating rather conservative. On the other hand, another clutch manufacturer may rate a clutch at the torque level it starts to slip in an effort to provide a more impressive rating.

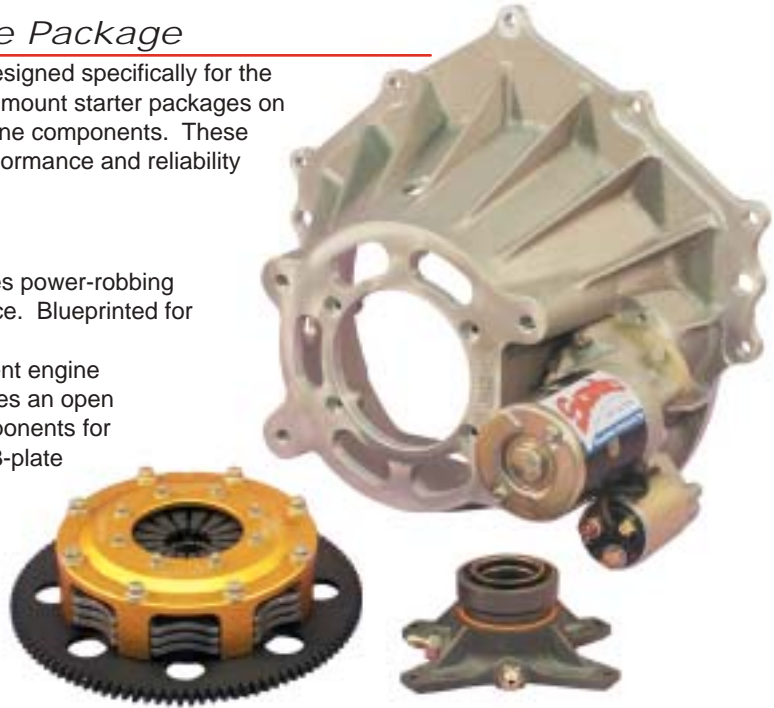
Heat capacity refers to the amount of heat the clutch can withstand before damage or failure occurs. Whenever a clutch is engaged (slipped) it generates heat. The friction discs and floater plates of the clutch absorb the heat. The more mass a clutch has, the more heat/ temperature it can absorb. A clutch with an ex tra disc can last much longer since it will be ex posed to lower temperatures, as a result of its better heat absorption capacity. It is the paddock area where the clutch must be slipped, raising clutch temperature and causing the most damage. Even if horsepower levels are equal, a heavier car will require more material (to absorb heat) than a lighter car.

Rear-mount Starter Driveline Package

Sonic Rear-mount Starter packages have been designed specifically for the short track racer. They are the most modern rear-mount starter packages on the market, offering the latest technology in driveline components. These packages provide great value, exceeding the performance and reliability of packages from other manufacturers.

Features:

- **Aluminum Bellhousing:** Rigid design eliminates power-robbing driveline flex. Offers maximum ground clearance. Blueprinted for accurate alignment. Weight: 11.4 lbs.
- **5.5" MACH II Clutch:** Low inertia offers excellent engine acceleration and deceleration. The clutch features an open cover design and is assembled with quality components for the highest levels of reliability. Available in 2 or 3-plate versions.
- **Flywheel:** 105-tooth. Machined from heat-treated 4140 steel. Offers a far superior and safer operation than competitor's riveted-on ring gears and stamped metal adapters. Its smaller diameter, when compared to competitor's inferior cover-mounted ring gear design, offers reduced inertia for maximum engine performance. After machining, they receive an additional surface heat-treatment that greatly improves ring gear life and reduces wear to the clutch friction surface.
- **Starter:** Rear-mount. 1.9 hp motor and gear reduction provides quick, dependable starts. They are also interchangeable with competitor's rear-mount starter.
- **Hydraulic Release Bearing:** Mounts directly to the bellhousing. All clearances are preset from the factory. Once installed, bearing clearance will never have to be adjusted over the life of the clutch. Monoseal design provides maximum reliability.



Chevy V8 (E) Packages

Description

Description	Part Number
Package with 5.5" 2-plate clutch, 1 5/ 32" x 26 spline	10002
Package with 5.5" 2-plate clutch, 1 1/ 8" x 10 spline	10008
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline	10001
Package with 5.5" 3-plate clutch, 1 1/ 8" x 10 spline	10007
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline (for use with 1/ 4" midplate)	10010
Package with 5.5" 3-plate clutch, 1 1/ 8" x 10 spline (for use with 1/ 4" midplate)	10011

Chevy V8 (L) Packages

Description

Description	Part Number
Package with 5.5" 2-plate clutch, 1 5/ 32" x 26 spline (externally balanced engines)	10012
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline (externally balanced engines)	10013

Chevy V8 (LS) Packages

Description

Description	Part Number
Package with 5.5" 2-plate clutch, 1 5/ 32" x 26 spline	10006
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline	10005

Ford Small Block Packages

Description

Description	Part Number
Package with 5.5" 2-plate clutch, 1 5/ 32" x 26 spline	10003
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline	10004
Package with 5.5" 3-plate clutch, 1 5/ 32" x 26 spline (for use with 1/ 4" midplate)	10014

NOTE: (E) = Chevy V8 with 2-piece rear main seal
 (L) = Chevy V8 with one-piece rear main seal
 (LS) = Chevy LS1/LS6 engines

Replacement Parts

• Bellhousing

Description	Part Number
Bellhousing, aluminum, rear-mount starter, Chevy	12001
Bellhousing, aluminum, rear-mount starter, Ford	12002



• Starter

Description	Part Number
Starter, rear-mount, 1.9 hp, for use with 105-tooth flywheels	14001
Starter, rear-mount, 3.0 hp, for use with 105-tooth flywheels	14002



• Hydraulic Release Bearings (HRB)

Description	Part Number
HRB, rear-mount starter packages, 5.5" 2-plate clutches	20002
HRB, rear-mount starter packages, 5.5" 3-plate clutches	20001
Replacement bearing for HRB	21001
Replacement seal kit for HRB	21003



• Clutch Assembly

Includes clutch cover, pressure plate and floater plate(s) .

Description	Part Number
Clutch assembly, 5.5" 2-plate	16001
Clutch assembly, 5.5" 3-plate	16002



• Disk Packs

Description	Part Number
Disk pack, 5.5", 2 discs, 1 5/ 32" x 26 spline	18001
Disk pack, 5.5", 2 discs, 1 1/ 8" x 10 spline	18006
Disk pack, 5.5", 3 discs, 1 5/ 32" x 26 spline	18002
Disk pack, 5.5", 3 discs, 1 1/ 8" x 10 spline	18007



• 105-tooth Flywheels

Description	Part Number
Flywheel, 105-tooth, Chevy (E)	19001
Flywheel, 105-tooth, Chevy (E) , for use with 1/ 4" mid-plate	19018
Flywheel, 105-tooth, Chevy (L)	19020
Counter weight set for ZZ4 engines, for use with P/ N 19020 flywheel	19021
Flywheel, 105-tooth, Chevy (LS)	19009
Flywheel, 105-tooth, Ford Sm Blk	19006



• Bolt Kits

Description	Part Number
Bolt kit, clutch-to-flywheel, 5.5" 2-plate clutches	22002
Bolt kit, clutch-to-flywheel, 5.5" 3-plate clutches	22001
Bolt kit, flywheel-to-crank, all ex cept Chevy (LS) engines	22006
Bolt kit, flywheel-to-crank, Chevy (LS) engines	22014
Bolt kit, bellhousing-to-engine, Chevy (E) & (L) engines	22010
Bolt kit, bellhousing-to-engine, Chevy (LS) engines	22012
Bolt kit, bellhousing-to-engine, Ford Sm Blk	22011



Hydroformed Steel Bellhousing

Sonic Racing Product' s formed steel bellhousing was specifically designed with the short track racer in mind. After evaluating the other formed steel bellhousings on the market and listening to feedback from racers, we set out to produce the finest formed steel bellhousing for short track racing. The result is the lightest, most rigid, feature-rich and versatile formed steel bellhousing available. In addition, Sonic Racing Products offers a wide range of clutches, flex plates and release bearing assemblies that are all designed to maximize performance and simplify installation.

Features:

- Lightweight, 24 lbs
- Ex tra rigid
- 1/ 4" thick steel
- Most ground clearance

Size of typical 168-tooth bellhousing. 



Description	Part Number	Weight* (lbs)
Steel Bellhousing, for Chevy	12003	24

Feature


- Specifically designed for Chevrolet 153-tooth flex plates/ flywheels.
- Ex tra rigid design.
- F or use with a wide variety of clutches, including small diameter multi-plate racing clutches and 10.5" OE-style clutches. Also for use with direct drive transmissions.
- 1/4" thick steel
- Lightweight... only 24 lbs
- Accepts hydraulic and mechanical release bearing assemblies, including Sonic' s 4-leg hydraulic release bearing assembly and stock-type pivot ball/ mechanical release bearing linkage.
- Powder coated
- Held to precise quality control tolerances

Benefit

- Offers the most ground clearance of any one-piece formed steel 153-tooth Chevrolet bellhousing. No need to cut the bottom out of the bellhousing to gain ground clearance.
- Reduced driveline flex . Driveline flex robs horsepower, causes premature wear of clutch discs, pilot bearings and internal transmission components.
- Enables the racer to choose a clutch that best suits their needs or racing series rules.
- Meets 1/4" thick steel requirements of many racing series.
- Enables race teams to place weight in desired areas of car.
- Provides flex ibility in choosing a release bearing assembly that best meets the racer' s needs.
- Provides long-term durability
- No need to rework bellhousing for proper fitment into car.



Optional components for use with Sonic steel bellhousing on next page.



Optional Components for use with Sonic Steel Bellhousing

We offer a wide range of clutches, flex plates and release bearing options for use with Sonic Steel Bellhousings. These options are designed to enable you to build a driveline package that best suits your individual needs.

• 5.5" MACH II Button CFA

5.5" 2 or 3-plate. Includes clutch, discs, button flywheel, clutch-to-flywheel bolt kit and flywheel-to-crank bolt kit



	Weight (lbs)	Moment-of-Inertia (lb-in ²)	Torque Capacity (lb-ft)
2-plate	8.49	43.9	500
3-plate	10.25	55.1	750

• 7.25" MACH I Button CFA

7.25" 2 or 3-plate. Includes clutch, discs, button flywheel and clutch-to-flywheel bolt kit.



	Weight (lbs)	Moment-of-Inertia (lb-in ²)	Torque Capacity (lb-ft)
2-plate	11.59	103.8	620
3-plate	14.16	126.7	930

• Low Inertia 153T Flexplates

153T Ultra-lightweight flex-plates offer a low moment-of-inertia for quick engine response. Features high quality materials and welds for maximum durability. Neutral balance.



	Weight (lbs)	Moment-of-Inertia (lb-in ²)
Ultra-lightweight (2-piece rear main seal)	3.4	87
Ultra-lightweight (1-piece rear main seal)	3.4	87

• Drive Hub

Designed for use with internal-clutch transmissions with 1 3/ 8" x 10 spline input shafts.



• Mechanical Release Bearings (MRB)

Designed to work with stock mechanical or slave cylinder type release bearing linkage. Available for use with Sonic MACH I (7.25") and MACH II (5.5") clutches.



• Hydraulic Release Bearings (HRB)

Designed to mount directly to the inside of Sonic Steel Bellhousings, eliminating the need for mechanical or slave cylinder linkage. Once installed, release bearing clearance will never need adjusting.



Chevy V8 (2-piece rear main seal) Engine Combinations

Clutch Type	Button CFA	Ultra-lightweight Flexplate	HRB	MRB	Drive Hub
5.5" 2-pl, 1 5/ 32" x 26 spline	11004	19027	20011	20008	N/ A
5.5" 2-pl, 1 1/ 8" x 10 spline	11006	19027	20011	20008	N/ A
5.5" 3-pl, 1 5/ 32" x 26 spline	11003	19027	20012	20009	N/ A
5.5" 3-pl, 1 1/ 8" x 10 spline	11005	19027	20012	20009	N/ A
7.25" 2-pl, 1 5/ 32" x 26 spline	11008	19027	20013	20006	N/ A
7.25" 2-pl, 1 1/ 8" x 10 spline	11010	19027	20013	20006	N/ A
7.25" 3-pl, 1 5/ 32" x 26 spline	11007	19027	20014	20007	N/ A
7.25" 3-pl, 1 1/ 8" x 10 spline	11009	19027	20014	20007	N/ A
10.5" OE-type clutch	N/ A	N/ A	20015	N/ A	N/ A
Internal-clutch transmissions	N/ A	19027	N/ A	N/ A	19028

Chevy V8 (1-piece rear main seal) Engine Combinations

Clutch Type	Button CFA	Ultra-lightweight Flexplate	HRB	MRB
5.5" 2-pl, 1 5/ 32" x 26 spline	11028	19030	20011	20008
5.5" 2-pl, 1 5/ 32" x 26 spline, external balance button	11046	19030	20011	20008
5.5" 2-pl, 1 1/ 8" x 10 spline	11030	19030	20011	20008
5.5" 3-pl, 1 5/ 32" x 26 spline	11027	19030	20012	20009
5.5" 3-pl, 1 5/ 32" x 26 spline, external balance button	11045	19030	20012	20009
5.5" 3-pl, 1 1/ 8" x 10 spline	11029	19030	20012	20009
7.25" 2-pl, 1 5/ 32" x 26 spline	11032	19030	20013	20006
7.25" 2-pl, 1 1/ 8" x 10 spline	11034	19030	20013	20006
7.25" 3-pl, 1 5/ 32" x 26 spline	11031	19030	20014	20007
7.25" 3-pl, 1 1/ 8" x 10 spline	11033	19030	20014	20007

Note: Unless indicated, all Button Clutch-Flywheel-Assemblies (CFA) are neutral balance.

Rear-mount Starter Package for Direct Drive Transmissions

Sonic Rear-mount Starter Package for direct drive transmissions offers the highest level of performance and durability... making it the package of choice for racers using a direct drive transmission.

Features:

- **Aluminum Bellhousing:** Rigid design reduces power-robbing driveline flex . Offers maximum ground clearance. Accepts rear-mount pumps. Blueprinted for accurate alignment. Machined for use with 1/ 4" midplates.
- **Drive Hub & Ring Gear:** Steel drive hub includes 24-tooth pulley to drive rear-mounted pumps and offers great durability. One-piece steel 105T ring gear offers low inertia and durability.
- **Starter:** Rear-mounts starter for additional header clearance and improved weight distribution. Two high-torque starter options are available, 1.9 hp or 3.0 hp.



Chevy V8 (E) Packages

Description

Package, for direct drive transmissions, 1.9 hp starter

Package, for direct drive transmissions, 3.0 hp starter

Part Number

10015

10016

Chevy V8 (L) Packages

Description

Package, for direct drive transmissions, for externally balanced engines, 1.9 hp starter

Part Number

10017

Component Parts

• Bellhousing

Description

Bellhousing, aluminum, for direct drive transmissions, Chevy

Part Number

12004



• Starter

Description

Starter, rear-mount, 1.9 hp, for use with 105T ring gear

Starter, rear-mount, 3.0 hp, for use with 105T ring gear

Part Number

14001

14002



• Ring Gear & Drive Hub

Description

Ring gear, steel, 105-tooth, Chevy (E)

Drive hub/ pulley, steel, 24T pulley, Chevy (E)

Ring gear, steel, 105-tooth, Chevy (L) , external balance

Drive hub/ pulley, steel, 24T pulley, Chevy (L)

Part Number

19025

19024

19033

19032



• Bolt Kits

Description

Bolt kit, ring gear/ hub-to-crank, Chevy (E)

Bolt kit, ring gear/ hub-to-crank, Chevy (L)

Part Number

22015

22016



NOTE: (E) = Chevy V8 with 2-piece rear main seal, (L) = Chevy V8 with 1-piece rear main seal



MACH-Series Clutches

MACH-Series clutches offer short track racers the performance and reliability to finish the race first... race after race. MACH-Series clutches are CAD designed, FEA optimized and precision CNC-machined from high quality materials that meet strict quality control requirements. The result is clutches that offer short track racers the highest performance, the highest reliability and best value of any racing clutch on the market.

Features:

- Low moment-of-inertia (MOI) for quick engine acceleration and deceleration
- High torque capacity over a wide wear range
- Open clutch cover design for cooler and cleaner operation
- One-piece clutch cover has a high burst strength and minimal deflection
- Chrome vanadium diaphragm springs and an engineered pressure plate geometry provide a high clamp load-to-wear ratio and a low release load
- Assembled from top quality components and held to strict quality control requirements
- Rebuildable

MACH-Series clutches are available in 5.5", 7.25" and 8.5" diameters, either individually or as a complete Button Clutch-Flywheel-Assembly. Please see pages 8-10 for details.



5.5" MACH II Clutches

2 or 3-plate available
**For Super Late Models, Late Models
 and Asphalt/Dirt Modifieds**



7.25" MACH I Clutches

1, 2 or 3-plate available
**For Limited Late Models, Sportsman,
 Street Stocks and**



8.5" MACH VIII Clutches

1-plate available
For Stock Cars, Sportsman and Street Stocks

5.5" MACH II Clutches

MACH II clutches are the ideal choice for racing series that allow 5.5" clutches, such as many asphalt Late Model series. MACH II 5.5" clutch assemblies provide a lower moment-of-inertia than 7.25" assemblies for quicker engine acceleration and deceleration. In addition, MACH II clutches are an excellent upgrade for other 5.5" clutches with an 8-bolt mounting pattern. Assemblies are available as a complete Button Clutch-Flywheel-Assembly or individually. See page 11 & 12 for optional flexplates and release bearings.



• Button Clutch-Flywheel-Assemblies Include:

5.5" MACH II clutch, discs, billet steel button flywheel, clutch-to-flywheel bolt kit and flywheel-to-crankshaft bolt kit.

Description	Torque Capacity (lb-ft)	PART NUMBERS		
		Chevy V8 (E)	Chevy V8 (L)	Ford Sm Blk
2-plate, 1 1/ 8" x 10 spline	500	11006	11030	11018
2-plate, 1 5/ 32" x 26 spline	500	11004	11028	11016
2-plate, 1 5/ 32" x 26 spline (external balance)	500	N/ A	11046	N/ A
3-plate, 1 1/ 8" x 10 spline	750	11005	11029	11017
3-plate, 1 5/ 32" x 26 spline	750	11003	11027	11015
3-plate, 1 5/ 32" x 26 spline (external balance)	750	N/ A	11045	N/ A

Note: MACH II Button CFAs are neutral balance, unless indicated.

See page 13 for weight and moment-of-inertia values of MACH II Button CFAs.

Clutches & Components

• Clutch Assembly

Includes: Clutch cover, pressure plate and floater plates.

Description	Part Number
Clutch assembly, 5.5" 2-plate	16001
Clutch assembly, 5.5" 3-plate	16002

• Pressure Plate

Description	Part Number
Pressure plate, 5.5"	17008

• Floater Plate

Description	Part Number
Floater plate, 5.5"	17009

• Disk Packs

Description	Part Number
Disk pack, 5.5" 2-plate, 1 1/ 8" x 10	18006
Disk pack, 5.5" 2-plate, 1 5/ 32" x 26	18001
Disk pack, 5.5" 3-plate, 1 1/ 8" x 10	18007
Disk pack, 5.5" 3-plate, 1 5/ 32" x 26	18002

• Button Flywheels

Description	Part Number
Button flywheel, 5.5", Chevy (E)	19002
Button flywheel, 5.5", Chevy (L)	19010
Button flywheel, 5.5", Chevy (L) external balance	19023
Button flywheel, 5.5", Ford Sm Blk	19007

• Bolt Kits

Description	Part Number
Clutch-to-flywheel bolt kit, 5.5" 2-plate	22002
Clutch-to-flywheel bolt kit, 5.5" 3-plate	22001
Flywheel-to-crank bolt kit	22006



NOTE: (E) = Chevy V8 with 2-piece rear main seal, (L) = Chevy V8 with 1-piece rear main seal

7.25" MACH I Clutches

MACH I clutches offer a cost-effective means to upgrade from a heavy OEM-style clutch assembly or other 7.25" clutch with a 6-bolt mounting pattern. They provide a significantly lower moment-of-inertia and a greater level of reliability than OEM-style clutches. If your track/ series rules do not allow 5.5" (or smaller) clutches, or long-term durability is most desired, MACH I clutches are your ideal choice. See page 11 & 12 for optional flexplates and release bearings.



• Button Clutch-Flywheel-Assemblies Include:

7.25" MACH I clutch, disc(s) , billet steel button flywheel, clutch-to-flywheel bolt kit.

Description	Torque Capacity (lb-ft)	PART NUMBERS		
		Chevy V8 (E)	Chevy V8 (L)	Ford Sm Blk
1-plate, 1 1/ 8" x 10 spline	310	11035	11037	11039
1-plate, 1 5/ 32" x 26 spline	310	11036	11038	11040
2-plate, 1 1/ 8" x 10 spline	620	11010	11034	11022
2-plate, 1 5/ 32" x 26 spline	620	11008	11032	11020
3-plate, 1 1/ 8" x 10 spline	930	11009	11033	11021
3-plate, 1 5/ 32" x 26 spline	930	11007	11031	11019

Note: MACH I Button CFAs are neutral balance, unless indicated.
See page 13 for weight and moment-of-inertia values of MACH I Button CFAs.

Clutches & Components

• Clutch Assembly

Includes: Clutch cover, pressure plate and floater plates.

Description	Part Number
Clutch assembly, 7.25" 1-plate	16006
Clutch assembly, 7.25" 2-plate	16003
Clutch assembly, 7.25" 3-plate	16004

• Pressure Plate

Description	Part Number
Pressure plate, 7.25"	17006

• Floater Plate

Description	Part Number
Floater plate, 7.25"	17007

• Disk Packs

Description	Part Number
Disk pack, 7.25" 1-plate, 1 1/ 8" x 10	18011
Disk pack, 7.25" 1-plate, 1 5/ 32" x 26	18012
Disk pack, 7.25" 2-plate, 1 1/ 8" x 10	18008
Disk pack, 7.25" 2-plate, 1 5/ 32" x 26	18003
Disk pack, 7.25" 3-plate, 1 1/ 8" x 10	18009
Disk pack, 7.25" 3-plate, 1 5/ 32" x 26	18004

• Button Flywheels

Description	Part Number
Button flywheel, 7.25", Chevy (E)	19003
Button flywheel, 7.25", Chevy (L)	19011
Button flywheel, 7.25", Ford Sm Blk	19008

• Bolt Kits

Description	Part Number
Clutch-to-flywheel bolt kit, 7.25" 1-plate	22013
Clutch-to-flywheel bolt kit, 7.25" 2-plate	22004
Clutch-to-flywheel bolt kit, 7.25" 3-plate	22003
Flywheel-to-crank bolt kit	22007



NOTE: (E) = Chevy V8 with 2-piece rear main seal, (L) = Chevy V8 with 1-piece rear main seal

8.5" MACH VIII Clutches

MACH VIII 8.5" clutches are designed for racing series that require a single plate clutch, but allow smaller (than OE) diameter clutches. MACH VIII clutches are ideal for use in most Stock Car classes that require a single-plate clutch. MACH VIII clutches also provide a lower moment-of-inertia than 10.5" OE-type clutches and greater durability than 7.25" 1-plate clutches. Assemblies are available as a complete Button Clutch-Flywheel-Assembly or individually. See page 11 & 12 for optional flexplates and release bearings.



• Button Clutch-Flywheel-Assemblies Include:

8.5" MACH VIII clutch, disc, billet steel button flywheel, clutch-to-flywheel bolt kit.

Description	Torque Capacity (lb-ft)	PART NUMBERS	
		Chevy V8 (E)	
1-plate, 1 1/ 8" x 10 spline	375	11042	
1-plate, 1 5/ 32" x 26 spline	375	11043	

Note: MACH VIII Button CFAs are neutral balance, unless indicated. See page 13 for weight and moment-of-inertia values of MACH VIII Button CFAs.

Component Parts for 8.5" MACH VIII Clutch-Flywheel-Assemblies

Description	Part Number
Clutch assembly, 8.5" 1-plate	16007
Disc pack, 8.5" 1-plate, 1 1/ 8" x 10	18013
Disc pack, 8.5" 1-plate, 1 5/ 32" x 26	18014
Button flywheel, 8.5", Chevy (E)	19017
Clutch-to-flywheel bolt kit, 8.5" 1-plate	22004

Ford 2.0/2.3L Clutch-Flywheel-Assembly

Sonic' s 7.25" Ford 2.0/ 2.3L clutch-flywheel-assembly is ideal for use in Mini Stock classes that allow the use of 7.25" clutches. The assembly provides increased performance and reliability over OEM-type clutches/ flywheels. The assembly' s low moment-of-inertia provides quicker engine acceleration and deceleration. The MACH I 7.25" clutch and billet steel flywheel provide the highest level of durability. See page 12 for optional release bearings.



• 135T Clutch-Flywheel-Assemblies Include:

7.25" MACH I clutch, disc, 135T billet steel flywheel and clutch-to-flywheel bolt kit.

Description	Part Number	Torque Capacity (lb-ft)	Weight* (lbs)	Moment-of-inertia* (lb-in ²)
1-plate, 1" x 23 spline	11044	310	12.3	144.1

* Weight and MOI values include clutch, disc and flywheel.

Component Parts for 7.25" Ford 2.0/2.3L Clutch-Flywheel-Assemblies

Description	Part Number
Clutch assembly, 7.25" 1-plate	16006
Disc pack, 7.25" 1-plate, 1" x 23	18015
Flywheel, 135T, 7.25", F ord 2.0/ 2.3L	19019
Clutch-to-flywheel bolt kit, 7.25" 1-plate	22013

NOTE: (E) = Chevy V8 with 2-piece rear main seal

Button Flywheels

Sonic Button flywheels are designed to serve as the clutch's friction surface, when used in conjunction with a flex plate. Machined from heat-treated billet steel. Neutral balance unless noted.



Application	Clutch Diameter	Weight (lbs)	Moment-of-Inertia (lb-in ²)	Part Number
Chevy 2-pc rear main	5.5"	2.1	11.5	19002
Chevy 2-pc rear main	7.25"	3.6	31.0	19003
Chevy 2-pc rear main	8.5"	5.0	54.3	19017
Chevy 1-pc rear main	5.5"	2.5	12.3	19010
Chevy 1-pc rear main (external balance) *	5.5"	2.9	18.2	19023
Chevy 1-pc rear main	7.25"	3.8	30.7	19011
Chevy 1-pc rear main (external balance) *	7.25"	4.2	37.4	19031
Ford Small Block	5.5"	2.6	12.5	19007
Ford Small Block	7.25"	3.8	29.5	19008

* Designed for use with externally-balanced ZZ4 engines. Includes imbalance and is designed for use with neutral-balance flexplates

105-Tooth Flywheels

Sonic 105T flywheels are designed for use with Sonic's Rear-mount Starter bellhousings. Sonic 105T flywheels offer a low moment-of-inertia for quick engine acceleration and deceleration. Machined from heat-treated billet 4140 steel. Neutral balance unless noted.



Application	Clutch Diameter	Weight (lbs)	Moment-of-Inertia (lb-in ²)	Part Number
Chevy 2-pc rear main	5.5"	4.1	38.1	19001
Chevy 2-pc rear main (1/ 4" midplate) * *	5.5"	4.7	44.7	19018
Chevy 1-pc rear main (external balance) * * *	5.5"	4.1	38.0	19020
Chevy LS1/ LS6	5.5"	4.9	42.3	19009
Ford Small Block	5.5"	4.7	39.3	19006
Ford Small Block (1/ 4" midplate) * *	5.5"	4.9	39.6	19022

** Designed for applications using a 1/4" mid-plate between the engine and bellhousing.

*** Designed for use with externally-balanced ZZ4 engines. Must also order P/N 19021 for counterweight set.

153-Tooth Flexplates

Sonic 153T ultra-lightweight flex plates offer a significantly lower moment-of-inertia than OEM flex plates, improving engine acceleration and deceleration. Neutral balance.

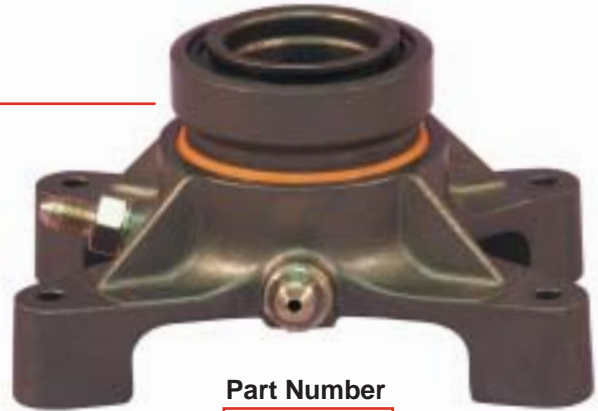


Application	Weight (lbs)	Moment-of-Inertia (lb-in ²)	Part Number
Chevy 2-pc rear main	3.4	87	19027
Chevy 1-pc rear main	3.4	87	19030

Hydraulic Release Bearing: Sonic Steel Bellhousing / Universal

Features:

- Designed to mount inside Sonic hydroformed steel bellhousings
- Universal assemblies available for fitment into other applications
- Constant contact design provides quick response and self-adjusts for clutch wear
- Reliable monoseal design



Application

Sonic steel bellhousing, 5.5" 2-plate Sonic/ Tilton clutch
 Sonic steel bellhousing, 5.5" 3-plate Sonic/ Tilton clutch
 Sonic steel bellhousing, 7.25" 2-plate Sonic/ Tilton clutch
 Sonic steel bellhousing, 7.25" 3-plate Sonic/ Tilton clutch
 Sonic steel bellhousing, 10.5" OE-type clutch
 Universal, 5.5" Sonic/ Tilton clutches
 Universal, 7.25" Sonic/ Tilton clutches
 Replacement bearing, 5.5" Sonic/ Tilton clutches
 Replacement bearing, 7.25" clutches
 Replacement seal kit

Part Number

20011
20012
20013
20014
20015
20003
20004
21001
21002
21003

Hydraulic Release Bearing: Sonic Rear-mount Starter Bellhousings

Features:

- Designed to mount inside Sonic aluminum rear-mount starter bellhousings
- Constant contact design provides quick response and self-adjusts for clutch wear
- Reliable monoseal design



Application

Sonic rear-mnt starter bellhousing, 5.5" 2-plate Sonic/ Tilton clutch
 Sonic rear-mnt starter bellhousing, 5.5" 3-plate Sonic/ Tilton clutch
 Replacement bearing, 5.5" Sonic/ Tilton clutches
 Replacement seal kit

Part Number

20002
20001
21001
21003

Mechanical Release Bearing

Features:

- Designed for use with stock-type mechanical or slave cylinder clutch release mechanisms
- Available for use with Sonic/ Tilton 5.5", 7.25" or 8.5" clutches



Application

Chevy V8, 5.5" 2-plate Sonic/ Tilton clutch
 Chevy V8, 5.5" 3-plate Sonic/ Tilton clutch
 Chevy V8, 7.25" 1-plate Sonic/ Tilton clutch
 Chevy V8, 7.25" 2-plate Sonic/ Tilton clutch
 Chevy V8, 7.25" 3-plate & 8.5" 1-plate Sonic/ Tilton clutch
 Ford 2.0/ 2.3L, 7.25" 1-plate Sonic/ Tilton clutch

Part Number

20008
20009
20005
20006
20007
20010

Weight & Moment-of-Inertia Comparisons

Lower Moment-of-Inertia = Faster Engine Acceleration and Deceleration

Clutch Assemblies*

Assembly	Weight (lbs)	Moment-of-Inertia (lb-in ²)
5.5" 2-plate	6.0	32
5.5" 3-plate	7.6	43
7.25" 1-plate	5.3	46.1
7.25" 2-plate	7.8	68.3
7.25" 3-plate	10.2	89.6
8.5" 1-plate	8.1	99

* Includes clutch and discs.



Button Clutch-Flywheel-Assemblies**

Assembly	Weight (lbs)	Moment-of-Inertia (lb-in ²)
5.5" 2-plate	8.5	43.9
5.5" 3-plate	10.3	55.1
7.25" 1-plate	9.1	80.1
7.25" 2-plate	11.6	103.8
7.25" 3-plate	14.2	126.7
8.5" 1-plate	13.9	165

** Includes clutch, discs, button flywheel and hardware.



105T Clutch-Flywheel-Assemblies***

Assembly	Weight (lbs)	Moment-of-Inertia (lb-in ²)
5.5" 2-plate	10.5	70.5
5.5" 3-plate	12.2	81.7

*** Includes clutch, discs, 105T flywheel and hardware.



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SHEET 1 OF 1