All DMR engines are balanced, blueprinted, and assembled by Dick Miller.

As our motto says “When Only The Best Will Do”. With many possible options, the following engine kits reflects the norm in engine building combinations. We have an ample supply of cores or will use yours after we magniflux them for cracks. We will not sell our cores unless we are building an engine. All of the engines assembled at Dick Miller Racing are built to the same specifications (quality, cleanliness, blueprinting specifications, and everything is accurately measured) or it will not be assembled until it is right. We tailor each engine to the customers needs by using different compression ratios, camshafts, intakes, and carburetors. Call us for a quote for your specific needs. We can provide you with the services of removing and installing your engine.

TECH TIP: Engine builders can make claims for higher horsepower ratings than these combinations. We can and will build engines with higher horsepower ratings. However for bracket racing or street driving you need an engine with a lot of torque. It's torque that gets a heavy car under motion not horsepower. There are no machines that measure horsepower. Horsepower is simply a mathematical function of torque vs. RPM. \( HP = \frac{(RPM \times \text{TORQUE})}{5252} \). This explanation is simplified, but to raise the horsepower in an engine properly built and tuned with no other changes will theoretically require a cam change to more duration which in return creates an engine with a higher power band (higher peek RPM range, more rear gear ratio) and quicker engine wear. So for bracket racing or street driving go with torque over horsepower every time and get an engine that will live longer.

DMR-5405 Oldsmobile V8 engine storage stand. These stands are great for storage and taking a spare engine to the races. The stand bolts to the engine mount pad on each side of the block and the lower bellhousing bolt holts. Fits all Oldsmobile V8’s, 1964 to present.

DMR-5405-W Same as DMR-5405 but comes with casters.

LUC-4 Lucas oil assembly lube eliminates dry starts. Use on bearings, cams, lifters and valve train to help prevent galling and scuffing. Compatible with all oils. Comes in 4 oz size.

LUC-8 Same as LUC-4 except comes in 8 oz size for those who build several engines.

DMR-10123 Lift plate bolts to the intake manifold carburetor flange to allow easy balanced hoist lifting of engine.

DMR-61820 Universal engine brush cleaning kit. Can be used to clean all piston bores, oil galleries, lifter bores, crankshafts, etc. For all types of engines.

The following bracket engine packages (race gas only) are complete crate engines from carburetor to oil pan and water pump to flexplate. They come dynoed, tuned, and broken in. They include a steel crank, billet rods, forged pistons, low tension file fit rings, and fully ported aluminum heads. The bore and stroke may be changed to your particular needs.

DMR-350-BRK 350 cu in + .030 with approximately 640 horsepower and 520 lb-ft torque. These engines are sold complete with matching calibrated components. Included is a carburetor, distributor, water pump, SFI flywheel, SFI damper, steel crank, billet rods, coated bearings, coated forged aluminum pistons, moly rings, custom cam and lifters, aluminum intake, ported aluminum heads, aluminum valve covers, aluminum roller rockers, 8 qt oil pan system, all necessary oil system modifications, ARP studs in all critical areas and a main bearing 5 cap halo girdle. The intake bottom and piston tops are coated with a thermal barrier, bearings, piston skirts and oil pump are lubricant coated, and the crank and rods are coated for oil shedding.

DMR-403-BRK Same as DMR-350-PG except 403 cu in+.030. With approximately 670HP and 577 lb-ft torque. This engine will include a full pan rail style girdle.


DMR-496-BRK Same as DMR-350-PG except 496 cu in (4.185x4.500). With approximately 666 HP and 650 lb-ft torque. 4.185 Bore and 4.500 stroke.

TECH TIP: When looking at peek horsepower and peek torque it is very important to look at the RPM range over which these numbers appear.

The following 93 octane street/strip pump gas engine packages are complete crate engines from carburetor to oil pan and water pump to flexplate. They come dynoed, tuned, and broken in. They include a cast crank, forged rods, forged pistons, standard tension file fit rings, and ported aluminum heads. The bore and stroke may be changed to your particular needs.

DMR-350-PG 350 cu in + .030 with approximately 557 horsepower and 495 lb-ft torque. These engines are sold complete with matching calibrated components. Included is a carburetor, distributor, water pump, flywheel, damper, cast crank, forged rods, coated bearings, coated forged aluminum pistons, moly file fit rings, custom cam and lifters, aluminum intake, ported aluminum heads, aluminum valve covers, aluminum roller rockers, 8 qt oil pan system, all necessary oil system modifications, ARP studs in all critical areas and a main bearing 5 cap halo girdle.

DMR-403-PG Same as DMR-350-PG except 403 cu in + .030. With approximately 587 HP and 556 lb-ft torque. This engine will include a full pan rail style girdle.

DMR-455-PG Same as DMR-350-PG except 455 cu in + .030. With approximately 569 HP and 591 lb-ft.

DMR-496-PG Same as DMR-350-PG except 496 cu in (4.185x4.500). With approximately 563 HP 612 lb-ft torque.

DMR-511-PGR Same as DMR-350-PG except 511 cu in (4.250x4.500). With approximately 565 HP and 625 lb-ft torque.

The following pump gas upper end kits are dyno proven and for the do-it yourselfer to be used as bolt-on kits with your own block.

DMR-350-472 Build your own 472.6 horsepower with 433.7 pounds of torque like I did using your 350 + .030 cu in 10.25:1 compression short block. The following kit contains parts that are identically prepared to the ones I used and should be all you need to complete the project yourself. The parts included are specially calibrated Holly carb prepared by the Carb Shop, port matched EDE-7111-350 Edelbrock intake & gasket & DMR-5580 valley tray, chrome valve covers and breathers + gaskets, DMR-6052-9-P competition ported Edelbrock heads & Felpro head gasket, DMR-350-472 Flat tappet mechanical camshaft & lifters + roller rockers, specially calibrated DUI-42720 vacuum advance distributor + wires (red - blue - black), ARP head bolts and intake bolts + valve cover studs, and DMR-5653-GP chrome moly 1 piece push rods with oil restrictors.

DMR-425-620 Build your own 620 horsepower with 569 pounds of torque like I did using your 425 + .030 cu in 10.5:1 compression short block. The following kit contains parts that are identically prepared to the ones I used and should be all you need to do complete the project yourself. The parts included are specially calibrated Holly carb prepared by the Carb Shop, port matched EDE-2810-455 Edelbrock intake + gasket + DMR-5580 valley tray, chrome valve covers and breathers + gaskets, DMR-50001-A-P Ported Bulldog heads + Felpro head gasket, DMR-425-620 Mechanical Roller camshaft & lifters + roller rockers, specially calibrated DUI-42720 vacuum advance distributor + wires (red - blue - black), ARP head bolts and intake bolts + valve cover studs, DMR-5658-GP chrome moly 1 piece push rods with oil restrictors.

DMR-455-552 Build your own 552.8 horsepower with 613.1 pounds of torque like I did using your 455 + .030 cu in 10.25:1 compression short block. The following kit contains parts that are identically prepared to the ones I used and should be all you need to complete the project yourself. The parts included are specially calibrated Holly carb prepared by the Carb Shop, port matched EDE-2151-455 Edelbrock intake + gasket + DMR-5580 valley tray, chrome valve covers and breathers + gaskets, DMR-6052-9-P competition ported Edelbrock heads & Felpro head gasket, DMR-455-552 Hydraulic Roller camshaft & lifters + roller rockers, specially calibrated DUI-42720 vacuum advance distributor + wires (red - blue - black), ARP head bolts and intake bolts + valve cover studs, DMR-5658-GP chrome moly 1 piece push rods with oil restrictors.

The following ported cast iron headed street strip engine packages have the block degreased, magnifluxed, aligned bored, and honed with honing plates, main caps and support straps torqued in place for perfectly round bores. All B/B cranks are cross drilled. All cranks are turned and balanced. A new 8 quart oil pan system, oil pump, damper, flexplate, cam and
lifters, timing chain, pushrods, coated cam rod and main bearings, pistons, and adjustable rocker arms are installed.

DMR-4001 Street/Strip engine. Includes DMR-3001 street strip port job. We will bolt on your valve covers, intake, distributor, and carburetor and you can drop it in.

DMR-4001-5467 Same as DMR-4001 except includes DMR-5467 496 cu in rotating assembly.

DMR-4002 Bracket engine. Includes DMR-3002 bracket porting, an adjustable 7/16 stud rocker arm system, valve covers, and port matched intake. You can bolt on your carburetor, distributor and drop it in.

DMR-4002-5467 Same as DMR-4002 except includes DMR-5467 496 cu in rotating assembly.

DM-4003 Competition engine. Includes DMR-3003 competition porting, DMR-5466 forged steel crank rotating assembly, and DMR-5943 billet main caps and 5 cap halo girdle, SFI damper, SFI flexplate, an adjustable 7/16 stud rocker arm system, valve covers, and port matched intake. You can bolt on your carburetor, distributor, and drop it in.

DMR 4003-5467 Same as DMR-4003 except includes DMR-5467 496 cu in rotating assembly.

The following rotating assemblies can be used in your block after the necessary machine work has been performed.

DMR-5464 This 355 cu in (4.087x3.385) crankshaft assembly can be used in a 350 block. Kit comes with cast iron crank (balanced and chamfered), rod bearings, drilled main bearings, DMR-5455 6” forged rods, Diamond custom pistons made to your specifications, moly file fit rings for proper seal and less drag, new damper and bolt, new flexplate, ARP flexplate bolts, freeze plug kit, and gasket set. This kit is intended for street/some bracket use. Used with DMR-5942 billet main bearing caps for the strongest street/some bracket small block engine available.

DMR-5465 This is the strongest and most reliable 383 cu in (4.125x3.580) crankshaft assembly for your 350 block. Kit comes with forged steel crank (balanced and chamfered), rod bearings, drilled main bearings, DMR-5455 6” billet rods by Oliver, Diamond custom pistons made to your specifications, moly file fit rings for proper seal and less drag, new SFI damper and bolt, new SFI flexplate, ARP flexplate bolts, freeze plug kit, and gasket set. This kit is for race applications but can be streetable. Use with DMR-5942 billet main bearing caps and a girdle (22360-1, 22361-1, 22362-1) for highest torque, and strongest race small block engine available.

DMR-5466 This is the strongest and most reliable 466 cu in (4.185x4.250) crankshaft assembly for your 425 or 455 block. Kit comes with forged steel crank (balanced, cross drilled and chamfered), rod bearings, drilled main bearings, DMR-5455 7” billet rods by Oliver, Diamond custom pistons made to your specifications, moly file fit rings for proper seal and less drag, new SFI damper and bolt, new SFI flexplate, ARP flexplate bolts, freeze plug kit, and gasket set. This kit is for race applications but can be streetable. Used with DMR-5943 billet main bearing caps and a girdle (22360-2, 22361-2, 22362-2) this kit is the strongest race set up available.

DMR-5467-S This 496 cu in (4.185x4.500) crankshaft assembly can be used in a 425 or 455 block. Kit comes with a steel crank (balanced, cross drilled and chamfered), rod bearings, drilled main bearings, DMR-5455 7” forged rods by Oliver, Diamond custom pistons made to your specifications, moly file fit rings for proper seal and less drag, new damper and bolt, new flexplate, ARP flexplate bolts, freeze plug kit, and gasket set. This kit is intended for race use. Use with DMR-5943 billet main bearing caps and a girdle (22360-2, 22361-2, 22362-2) for the highest torque, baddest, and strongest race engine available.

DMR-5467-C This 500 cu in (4.185x4.500) crankshaft assembly can be used in a 425 or 455 block. Kit comes with a cast iron crank (balanced, cross drilled and chamfered), rod bearings, drilled main bearings, DMR-5455 7” forged rods by Oliver, Diamond custom pistons made to your specifications, moly file fit rings for proper seal and less drag, new damper and bolt, new flexplate, ARP flexplate bolts, freeze plug kit, and gasket set. This kit is intended for street/some bracket use. Use with DMR-5943 billet main bearing caps for the highest torque, and strongest street/some bracket engine available.
The following re-ring kits can be used on your pistons in your block. These are some of the more popular of many sizes and combinations available.

DMR-350-C This kit includes cast iron rings, main bearings, rod bearings, and a DMR-179350 gasket set.
DMR-350-M This kit includes moly rings, main bearing, rod bearings, and a DMR-179350 gasket.
DMR-403-C This kit includes cast iron rings, main bearings, rod bearings, and a DMR-179403 gasket set.
DMR-403-M This kit includes moly iron rings, main bearings, rod bearings, and a DMR-179403 gasket.
DMR-455-C This kit fits 425-455 engines and includes cast rings iron, main bearing, rod bearings, and a DMR-179455 gasket.
DMR-455-M This kit fits 425-455 engines and includes moly rings, main bearing, rod bearings, and a DMR-179455 gasket.

The following re-ring and piston kits can be used in your block. These are some of the more popular of many sizes and combinations available.

DMR-350-LCC This kit includes 8.5:1 cast pistons, cast rings, main bearings, rod bearings, DMR-179350 gasket set. Set of 8.
DMR-350-LCM This kit includes 8.5:1 cast pistons, moly rings, main bearings, rod bearings, DMR-179350 gasket set. Set of 8.
DMR-350-LFC This kit includes 8.5:1 forged pistons, cast rings, main bearings, rod bearings, DMR-179350 gasket set. Set of 8.
DMR-350-LFM This kit includes 8.5:1 forged pistons, moly rings, main bearings, rod bearings, DMR-179350 gasket set. Set of 8.
DMR-403-LCC This kit includes 8.5:1 cast pistons, cast rings, main bearings, rod bearings, DMR-179403 gasket set. Set of 8.
DMR-403-LCM This kit includes 8.5:1 cast pistons, moly rings, main bearings, rod bearings, DMR-179403 gasket set. Set of 8.
DMR-455-LFC This kit fits 425-455 engines and includes 8.5:1 forged pistons, cast rings, main bearings, rod bearings, DMR-179455 gasket set. Set of 8.
DMR-455-LFM This kit fits 425-455 engines and includes 8.5:1 forged pistons, plasma moly rings, main bearings, rod bearings, DMR-179455 gasket set. Set of 8.
DMR-455-HFC This kit fits 425-455 engines and includes 10.25:1 forged pistons, cast rings, main bearings, rod bearings, DMR-179455 gasket set. Set of 8.
DMR-455-HFM This kit fits 425-455 engines and includes 10.25:1 forged pistons, plasma moly rings, main bearings, rod bearings, DMR-179455 gasket set. Set of 8.

DMR-5850 Full-length stainless steel formed windage tray for Olds engines. Tray fits crankshaft counterweights so snugly no skimmer baffle is needed. This tray adds horsepower and longer engine life by removing excessive oil from reciprocating crankshaft assembly. Fits all oil pans except Toronado pans. Tray fits all Olds engines, 330, 350, 403, 425 and 455. DMR-5860 or DMR-5870 stud kit required for installation. If using with main studs and straps use ARP-184-5401-SW or ARP-185-5401-SW main stud and strap kit. Will work with main girdles part # DMR-22301 - #DMR-22361.

DMR-5946 .500 thick main cap straps. Use in engines when a girdle is not going to be used. The denser material greatly strengthens the caps and helps eliminate the caps from flexing. Use if you already have the main stud kit or want to install a strap on #1 main cap. Fits 7/16” stud hole, 260-403 small block Oldsmobile engines except 350 Diesel. Purchased individually. 1/2“ must be removed from the main cap before installation.

DMR-5941 Same as DMR-5946 except fits 1/2” stud hole, 350 Diesel and all 400,425, and 455 big block Oldsmobile engines. Purchased individually.
DMR-5942 These ultimate billet main bearing caps are built to Dick Miller Racing specs and have features other caps don’t have. These caps are made .005” wider so that the block may be machined to square the register that the cap sets in. Up to .040” may be removed to allow the main bore to be moved to the necessary location. Notches are made in the sides of the cap to allow lifting the cap from the saddle for easy removal of the cap on an assembled engine. Stud holes are spot faced perfectly flat for repeatable torque readings using hardened washers. Anodized in a Black Oxide finish to maintain a rust free appearance. The company logo is laser etched into bottom of cap for easy identification. No sharp edges strengthen the caps which are made from 1045 carbon steel with a tensile strength of 90,000 PSI for the strongest materials in the industry and then machined on all surfaces. Fits 7/16” stud hole, 260-307-330-350-403 small block Oldsmobile engines except 350 Diesel. Made the right height and flat on the bottom to require minimal machine work when installing a DMR-22360, DMR-22361, or DMR-22362 main girdle.

DMR-5942-S Same as DMR-5942 except includes an ARP stud kit.

DMR-5942-S-W Same as DMR-5942 except includes an ARP stud kit and extra hardware to mount a DMR-5850 windage tray.

DMR-5943 Same as DMR-5942 except fits 425-455 Olds V-8.

DMR-5943-S Same as DMR-5943 except includes an ARP stud kit.

DMR-5943-S-W Same as DMR-5943 except includes an ARP stud kit and extra hardware to mount a DMR-5850 windage tray.

TECH TIP: With all the improvements in heads, cams, and valve trains allowing for additional horsepower, the blocks are being stressed far beyond their original design. Filling the block up to the bottom of the water pump holes and/or adding a main girdle will give the increased strength needed to hold up to these new horsepower levels. We have been filling blocks for street and all out racing applications for years with great success. In most cases the engine water temperature will be less than an unfilled block. I do recommend an engine oil cooler as the engine oil will run hotter.

DMR-22360-1 Made from 1/2” thick steel this halo girdle will stabilize main caps 1 thru 4 to help prevent main cap walk (flex) which will lead to premature main bearing and crank failure. Will work with DMR-5942 billet main bearing caps. Will fit stock pan and all aftermarket pans but not Toro pan. Fits 307-330-350-403 Oldsmobile engines.

DMR-22360-1-S Same as DMR-22360-1 except includes an ARP stud kit.

DMR-22360-1-S-W Same as DMR-22360-1 except includes an ARP stud kit and extra hardware to mount a DMR-5850 windage tray.

DMR-22361-1 Same as DMR-22360-1 except connects all 5 main caps for additional strength.

DMR-22361-1-S Same as DMR-22361-1 except includes an ARP stud kit.

DMR-22361-1-S-W Same as DMR-22361-1 except includes an ARP stud kit and extra hardware to mount a DMR-5850 windage tray.

DMR-22362-1 Same as DMR-22361-1 except this is a full girdle connecting all 5 main caps to the pan rails. Professional machine required.

DMR-22362-1-S Same as DMR-22362-1 except includes an ARP stud kit.

DMR-22362-1-S-W Same as DMR-22362-1 except connects all 5 main caps for additional strength.

DMR-22363-2-S Same as DMR-22363-2 except includes an ARP stud kit.

DMR-22363-2-S-W Same as DMR-22363-2 except includes an ARP stud kit and extra hardware to mount a DMR-5850 windage tray.

DMR-22364-2-S Same as DMR-22364-2 except this is a full girdle connecting all 5 main caps to the pan rails. Professional machine required.

DMR-22364-2-S Same as DMR-22364-2 except includes an ARP stud kit.