



MAKAIRA®



DUAL FORCE DRAG SYSTEM

The specialized carbon DFD or Dual Force Drag system used on all Makaira reels was specifically engineered to be mounted in the right side of the spool in order to bring all the mechanical workings closer together to maximize alignment and durability. The farther mechanical parts are separated the more opportunity there is for tolerance error and flexing which causes parts alignment issues. The DFD principal was specifically designed around the "Pull Bar Drag System". The major advantage to a "Pull Bar Drag System" is that the drag is being pulled rather than pushed. The most common type of lever drag in the industry is the "Push Bar Drag System". The Push Bar System places heavy pressure on the left side plate and utilizes the frame



for overall stability which is a fatal flaw in this type of design. This pressure creates frame flex, reducing drag pressure and causing tolerance alignment issues. This problem is further exaggerated on open top designs from other companies. One of the major benefits to the pull bar design is that there is no pressure placed on the frame. Therefore, our open top frame designs will not suffer frame flex found in our competitors reels.

This highly efficient drag system was designed and engineered by Tiburon Engineering USA to increase maximum drag pressure, reduce side load pressure on ball bearings and improve heat dissipation for long term smoothness over extended periods. This Okuma DFD is considered a wet drag system comprised of two carbon fiber drag washers that are sandwiched together and bonded with a fiber glass core. Pure carbon washers are coated with a thin layer of Cal Sheet's Universal drag grease for virtually zero start up inertia. These washers are compressed by two precision ground 17-4 grade stainless steel drag plates that have been ground flat then polished for maximum smoothness. These stainless steel friction drag plates have a minimum 32 Rockwell hardness allowing for high-end drag settings and consistently smooth drag performance at all ranges. The drag system is secured to the right side of the spool by a 6061-T6 grade aluminum cover that features Type-II anodizing for maximum alignment, strength and corrosion resistance.

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MAKAIRA REELS FEATURE:

- 6061-T6 machined aluminum frame with forged side plates
- 17-4 grade stainless steel gearing
- Helical cut gears for increased torque, smoothness and improved gear meshing
- Makaira reels all feature two-speed gearing systems
- Gold anodized two-speed gear shifter housing
- Cold forged, Type-II anodized, machined aluminum spool
- CRC: Corrosion Resistant Coating process
- Patented spool pin system for use with braided or mono lines
- Carbonite Dual Force drag system featuring Cal's universal drag grease
- Custom designed thrust bearing: Alleviates side load on heavy drag settings
- 4-pcs ABEC-5 precision Sapporo stainless steel ball bearings
- MK-80WII features 6-pcs of Sapporo ball bearings
- Double-dog, proprietary silent anti-reverse system
- Ratcheting drag lever and pre-set knob for precise drag setting
- Patented T-Bar handle with Easy Roll graphite insert on all models
- Heavy duty stainless steel ratcheting clicker system
- Heavy duty, 17-4 grade stainless steel drive and spool shafts
- Type-II gold anodized frame, sideplates, spool, drag lever and handle
- Open top frame design on MK-8II,10II, 15II,16II, 20II, and 50II
- Lug and plug system on all open top reel models
- Machined thumb rest on rear cross bar for improved ergonomics
- Forged aluminum full hard anodized reel foot and reel clamp
- Machine-etched marlin logo on left side plate
- Precision placement of drain holes maximizes water removal from reel
- Special screw ports around side plate screws reduces water/corrosion buildup



MK-8II



MK-16II



MK-20II



MK-30II





MK-130WII



MK-50II



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Model	Gear ratios	Bearings	Weight (g)	Line retrieve(cm)	Monofilament line capacity (diameter in mm.)	Max Drag @ Strike with Freespool	Max Drag @ Full with Freespool	Frame style	Frame	Sideplates	Spool	
Two-Speed Lever Drag Reels												
MK-8II	4.7:1 & 2.1:1	4BB + 1TB	685	85.1 & 38.1	0.37/320, 0.42/260, 0.48/195	12.3 kg	15.4 kg	Topless	AL	AL	AL	
MK-10II	4.7:1 & 2.1:1	4BB + 1TB	740	85.1 & 38.1	0.37/420, 0.42/350, 0.48/260	12.3 kg	15.4 kg	Topless	AL	AL	AL	
MK-15II	4.7:1 & 2.1:1	4BB + 1TB	780	85.1 & 38.1	0.42/500, 0.48/370, 0.55/280	12.3 kg	15.4 kg	Topless	AL	AL	AL	
MK-16II	4.3:1 & 1.3:1	4BB + 1TB	1160	99.6 & 30.0	0.37/910, 0.42/795, 0.48/590	15.4 kg	21.7 kg	Topless	AL	AL	AL	
MK-20II	3.8:1 & 1.7:1	4BB + 1TB	1298	100.1 & 44.5	0.48/800, 0.55/600, 0.60/480	16.8 kg	25.0 kg	Topless	AL	AL	AL	
MK-30II	3.8:1 & 1.7:1	4BB + 1TB	1417	100.1 & 44.5	0.55/700, 0.60/640, 0.70/500	16.8 kg	25.0 kg	Crossbar	AL	AL	AL	
MK-50II	3.2:1 & 1.3:1	4BB + 1TB	1741	96.0 & 38.9	0.55/910, 0.70/590, 0.90/360	27.2 kg	39.0 kg	Topless	AL	AL	AL	
MK-50WII	3.2:1 & 1.3:1	4BB + 1TB	1843	96.0 & 38.9	0.70/820, 0.75/710, 0.90/510	27.2 kg	39.0 kg	Crossbar	AL	AL	AL	
MK-80WII	3.1:1 & 1.2:1	6BB + 1TB	3289	116.1 & 52.9	0.90/910, 1.00/770, 0.1/12/600	32.1 kg	45.4 kg	Crossbar	AL	AL	AL	
MK-130II	2.2:1 & 1.2:1	6BB + 1TB	4750	100.8 & 55.1	0.90/1450, 1.00/1170, 1.12/920	34.1 kg	45.4 kg	Crossbar	AL	AL	AL	