

# Dual Sport Dilemma

## Determining Which Dual Sport Motorcycle Is Best For Me



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### Introduction

Japan's Big Four motorcycle manufacturers - Honda, Kawasaki, Suzuki, and Yamaha - are a skilled and strategic collection of minds. Each company does an incredible job of engineering dual sport motorcycles that fit into the smallest of unfilled niches. As a result, there are so many similar, yet different, options that it often makes it difficult for prospective buyers to narrow down which dual sport motorcycle would be best for them. It's also easy to get caught up in the hype of the bikes that have bigger fanbases when there is often a different bike that can better serve one's needs. That is why I set out to create an objective way for me to determine which handful of bikes truly best suit my needs.

I have to stick to comparing and shopping for a Japanese dual sport because the bikes from the European manufacturers, i.e. KTM, Husqvarna, Husaberg, Beta, BMW, etc., are far too expensive for my budget. Even 10 year old European dual sports often easily surpass \$5,000. Fortunately, Japan's Big Four collectively have a much better track record for longevity, making it easy for me to feel confident I'll end up with a reliable machine, even if the bike is 20 years old or more.

I listed 22 of the most important specs I believe are worth considering while shopping for a used dual sport motorcycle. Basically, I want what everyone wants - the unicorn, panacea bike that weighs nothing, has gobs of power, excels in the dirt, cruises comfortably on the highway, never breaks down, and requires minimal maintenance. None of the bikes from Japan's Big Four quite hit the mark, but there are several that are close. Below is my attempt at sifting through the finer details to determine which bikes I should be targeting in the used market.

Bike Specs	HONDA - RED HEADS				KAWASAKI - TEAM GREEN					SUZUKI - YELLOW FELLOWS				YAMAHA - BLUE CREW				
	CRF 230 L	CRF 250 L	CRF 250 L Rally	XR 650 L	KLX 230	KLR 250	KLX 250 S	KLX 250	KLR 650	DR 200 SE	DR 350 SE	DR-Z 400 S	DR 650 S	TW 200	XT 225	XT 250	WR 250 R	XT 350
Wet Weight	268	322	346	346	293	295	298	304	432	278	287	317	366	278	271	291	295	298
Seat Height	31.9	34.4	35.2	37	34.8	33.7	34.8	35	35	33.3	35	36.8	34.8	31.1	31.9	31.9	36.6	33.7
Starter (Electric vs. Kick)	Electric	Electric	Electric	Electric	Electric	Kick	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Kick
Fuel Injected vs. Carbureted	Carb	F.I.	F.I.	Carb	F.I.	Carb	Carb	F.I.	Carb	Carb	Carb	Carb	Carb	Carb	Carb	F.I.	F.I.	Carb
Engine Cooling	Air / Oil	Liquid	Liquid	Air / Oil	Air / Oil	Liquid	Liquid	Liquid	Liquid	Air / Oil	Air / Oil	Liquid	Air / Oil	Air / Oil	Air / Oil	Air / Oil	Liquid	Air / Oil
Displacement (CC)	223	250	250	644	233	249	249	249	651	199	349	398	644	196	223	249	250	346
Engine Compression Ratio	9	10.7	10.7	8.3	9.4	11	11	11	9.8	9.4	9.5	11.3	9.5	9.5	9.5	9.5	11.8	9
Horsepower	14.3	24.4	24.4	43.6	20.1	25	24	24	37	20	30	35	44	16	20	19	25	30
Gearbox	6	6	6	5	6	6	6	6	5	5	6	5	5	5	6	5	6	6
Top Speed	71	87	82	105	77	82	75	79	100	65	94	94	100	67	75	76	87	90
Oil Change Intervals	2000	8000	8000	2000	7600	6000	7500	7600	7500	3000	60 hours	3500	3500	3000	3000	3000	3000	4000
Valve Check Intervals	4000	16000	16000	4000	7600	3000	7500	7600	15000	3000	60 hours	15000	7500	3000	3000	3000	24000	4000
Valve Adjust. (Shim vs. Nut)	Nut	Shim	Shim	Nut	Nut?	Nut	Shim	Shim	Shim	Nut	Nut	Shim	Nut	Nut	Nut	Nut	Shim	Shim
Number of Valves	2	4	4	4	2	4	4	4	4	2	4	4	4	2	2	2	4	4
Fuel Capacity	2.3	2.1	2.7	2.8	2	2.9	2	2	6.1	3.4	2.5	2.6	3.4	1.8	2.3	2.6	2	3.1
Fuel Economy	73.2	65	70.5	42	Unknown	55.9	59.4	67.1	46.2	70.2	51.4	51.3	46.6	70.3	65.3	64.2	58.2	48.2
Ground Clearance	9.5	10	11	13	10.4	10.6	11	11.2	8.3	10	11.4	11.8	10.4	10.4	11.2	11.2	11.8	10.8
Suspension Travel	9 / 6.3	9.8 / 9.4	11 / 10.3	11.6 / 11.0	8.7 / 8.8	9.1 / 9.1	10.2 / 9.1	10 / 9.1	7.9 / 7.3	8.1 / 8.1	11 / 10	11.3 / 11.6	10.2 / 10.2	6.3 / 5.9	8.9 / 5.7	8.9 / 7.1	10.6 / 10.6	10 / 8.6
Brakes (Disc vs. Drum)	Disc / Disc	Disc / Disc	Disc / Disc	Disc / Disc	Disc / Disc	Disc / Drum	Disc / Disc	Disc / Disc	Disc / Disc	Disc / Drum	Disc / Disc	Disc / Disc	Disc / Disc	Disc / Drum	Disc / Drum	Disc / Disc	Disc / Disc	Disc / Drum
Tire Sizes	21 / 18	21 / 18	21 / 18	21 / 18	21 / 18	21 / 17	21 / 18	21 / 18	21 / 17	21 / 18	21 / 18	21 / 18	21 / 17	18 / 14	21 / 18	21 / 18	21 / 18	21 / 18
Aftermarket Support	*	***	***	***	*	***	**	**	***	**	*	***	***	**	*	**	***	*
MSRP (New)	4550	5200	5950	7000	4600	4250	5100	5400	6700	4650	4500	6800	6700	4600	4200	5200	6700	6150

\*Several of the specs are not completely accurate. Not all specs are clear and easy to find on the Internet, so I did the best I could at deducing figures as close to the objective truth as possible.

\*\*Fuel economy was determined using [fuelly.com/motorcycle](http://fuelly.com/motorcycle)

### My Top Priorities in a Bike

- Lightweight
- Air/oil cooled
- Electric start
- Simple design, easy to work on
- Long maintenance intervals
- Capable of cruising at 65 comfortably
- Fuel economy and range
- Fuel injected

The table below gives insight to how I ranked each bike within the various specs categories.

Wet Weight	I'll mostly be riding alone where I won't have help, especially in rural areas and the backcountry, so I need something I am capable of picking up myself even if I have an injury.
Seat Height	Lighter weight bikes score higher because taller seat heights likely result in higher centers of gravity, making it less stable and more difficult to pick back up after a drop.
Starter (Electric vs. Kick)	Tie breakers: 1) electric > kick, 2) fuel injected > carbureted, 3) engine compression ratio (higher is better), 4) overall specs comparison
Fuel Injected vs. Carbureted	Tie breakers: 1) fuel injected > carbureted (easier starting in cold temperatures, auto-adjusts for elevation, better fuel economy), 2) electric > kick start, 3) engine compression ratio (higher is better), 4) # of valves, 5) weight
Engine Cooling	Oil/air cooled engines are more simple, are less likely to be affected after dropping the bike, and require less maintenance. Oil change intervals are the first tie breaker.
Displacement (CC)	Lighter bikes are scored higher because the displacement should go further in manifesting a more noticeable difference in acceleration and top speed.
Engine Compression Ratio	Higher compression - more fuel efficient, more powerful, easier to start. Lower compression engines might last longer, but all of these bikes are known to be reliable for durable and reliable. Tie breakers: 1) FI > carb, 2) electric > kick start
Horsepower	Horsepower doesn't explain much about an engine's characteristics, but I think it can be a good indicator for how much "grunt" the engine has for when I load it down with gear and need to climb a steep hill or traverse an obstacle.
Gearbox	Tie breakers: 1) 6 gears > 5 gears, 2) top speed
Top Speed	I don't care about the top speed, but I am using it as a proxy for the comfortable cruising speed of each bike.
Oil Change Intervals	Longer intervals are of course better because it implies less maintenance.
Valve Check Intervals	Again, longer intervals are better for reduced maintenance.
Valve Adjust. (Shim vs. Nut)	Tie breakers: 1) nut > shim, 2) 2 valves > 4 valves, 3) valve check intervals, 4) engine compression ratio (lower ratios score higher due to reduced engine stress), 5) HP (lower HP scores higher due to lower engine stress)
Number of Valves	Tie breakers: 1) 2 valves > 4 valves, 2) nut vs. shim, 3) valve check intervals, 4) engine compression ratio (lower ratio scores higher due to lower engine stress), 5) HP (lower HP scores higher due to lower engine stress)
Fuel Capacity	Fuel economy is the tie breaker because better fuel economy helps to accentuate an increased range between fill-ups.
Fuel Economy	Who doesn't want to pay less at the pump?
Ground Clearance	Lighter weight bikes are scored higher since heavier bikes are more likely to have a higher center of gravity, making them less stable and more difficult to pick up.
Suspension Travel	I don't plan on riding the bike hard offroad, but more suspension travel means I can load the bike down with more gear without bottoming out the suspension when traveling over rough terrain.
Brakes (Disc vs. Drum)	Twin disc breaks are of course preferable over having a rear drum brake. Tie breaker: lighter weight bikes ranked higher because they'll carry less momentum and be easier to stop.
Tire Sizes	More common tire sizes means more options, which likely means cheaper prices as well. Tie breakers: 1) horsepower, 2) top speed; lower values for both tie breakers should lead to prolonged tire life.
Aftermarket Support	This category is purely based on my own perceptions of what is available in terms of OEM replacement parts, aftermarket farkles, and the size of each fanbase with insight on repairs and such.
MSRP (New)	Bikes that are no longer made and/or have more model years are scored higher because it should be easier to find a used one with a lower asking price.

\*I had to settle many tie breakers throughout the ranking process. This was done by, preferably, only comparing other relevant specs, but I was sometimes forced to compare many, if not all, specs categories to settle ties.

\*\*I tried to be as objective as possible, but it's hard to ignore my own personal perceptions/preferences/gut feelings when settling ties.

Overall Specs Rankings	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Wet Weight	CRF 230 L	XT 225	DR 200 SE	TW 200	DR 350 SE	XT 250	KLX 230	WR 250 R	KLR 250	KLX 250 S	XT 350	KLX 250	DR-Z 400 S	CRF 250 L	CRF 250 L Rally	XR 650 L	DR 650 S	KLR 650
Seat Height	TW 200	XT 250	XT 225	CRF 230 L	DR 200 SE	KLR 250	XT 350	CRF 250 L	KLX 230	KLX 250 S	DR 650 S	DR 350 SE	KLX 250	KLR 650	CRF 250 L Rally	WR 250 R	DR-Z 400 S	XR 650 L
Starter (Electric vs. Kick)	WR 250 R	KLX 250	CRF 250 L	CRF 250 L Rally	XT 250	KLX 230	DR-Z 400 S	KLX 250 S	KLR 650	DR 650 S	XT 225	DR 350 SE	TW 200	DR 200 SE	CRF 230 L	XR 650 L	KLR 250	XT 350
Fuel Injected vs. Carbureted	WR 250 R	KLX 250	CRF 250 L	CRF 250 L Rally	XT 250	KLX 230	DR-Z 400 S	KLX 250 S	KLR 650	XT 225	TW 200	DR 350 SE	DR 650 S	DR 200 SE	CRF 230 L	XR 650 L	KLR 250	XT 350
Engine Cooling	KLX 230	XT 350	DR 650 S	XT 250	XT 225	DR 200 SE	TW 200	CRF 230 L	XR 650 L	DR 350 SE	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 250 S	KLR 650	KLR 250	DR-Z 400 S	WR 250 R
Displacement (CC)	KLR 650	DR 650 S	XR 650 L	DR-Z 400 S	DR 350 SE	XT 350	WR 250 R	CRF 250 L	CRF 250 L Rally	KLX 250	XT 250	KLX 250 S	KLR 250	KLX 230	XT 225	CRF 230 L	DR 200 SE	TW 200
Engine Compression Ratio	WR 250 R	DR-Z 400 S	KLX 250	KLX 250 S	KLR 250	CRF 250 L	CRF 250 L Rally	KLR 650	XT 250	DR 650 S	DR 350 SE	XT 225	TW 200	KLX 230	DR 200 SE	CRF 230 L	XT 350	XR 650 L
Horsepower	DR 650 S	XR 650 L	KLR 650	DR-Z 400 S	DR 350 SE	XT 350	WR 250 R	KLR 250	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 250 S	KLX 230	XT 225	DR 200 SE	XT 250	TW 200	CRF 230 L
Gearbox	DR 350 SE	XT 350	WR 250 R	CRF 250 L	CRF 250 L Rally	KLR 250	KLX 250	KLX 230	KLX 250 S	XT 225	CRF 230 L	XR 650 L	DR 650 S	KLR 650	DR-Z 400 S	XT 250	DR 200 SE	TW 200
Top Speed	XR 650 L	DR 650 S	KLR 650	DR-Z 400 S	DR 350 SE	XT 350	WR 250 R	CRF 250 L	CRF 250 L Rally	KLR 250	KLX 230	KLX 250	XT 250	KLX 250 S	XT 225	CRF 230 L	TW 200	DR 200 SE
Oil Change Intervals	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 230	KLX 250 S	XT 350	WR 250 R	XT 350	DR-Z 400 S	DR 650 S	WR 250 R	XT 250	XT 225	DR 200 SE	TW 200	CRF 230 L	XR 650 L	DR 350 SE
Valve Check Intervals	WR 250 R	CRF 250 L	CRF 250 L Rally	DR-Z 400 S	KLR 650	KLX 250	KLX 230	KLX 250 S	DR 650 S	XR 650 L	CRF 230 L	XT 350	XT 225	DR 200 SE	TW 200	KLR 250	DR 350 SE	
Valve Adjust. (Shim vs. Nut)	CRF 230 L	DR 200 SE	TW 200	XT 250	XT 225	DR 650 S	XR 650 L	KLR 250	DR 350 SE	KLX 230	WR 250 R	CRF 250 L	CRF 250 L Rally	KLR 650	DR-Z 400 S	KLX 250	KLX 250 S	XT 350
Number of Valves	CRF 230 L	DR 200 SE	TW 200	XT 250	XT 225	KLX 230	DR 650 S	XR 650 L	KLR 250	DR 350 SE	WR 250 R	CRF 250 L	CRF 250 L Rally	KLR 650	DR-Z 400 S	KLX 250	KLX 250 S	XT 350
Fuel Capacity	KLR 650	DR 200 SE	DR 650 S	XT 350	KLR 250	XR 650 L	CRF 250 L Rally	XT 250	DR-Z 400 S	DR 350 SE	CRF 230 L	XT 225	CRF 250 L	KLX 230	KLX 250	KLX 250 S	WR 250 R	TW 200
Fuel Economy	CRF 230 L	TW 200	DR 200 SE	KLX 230	CRF 250 L Rally	KLX 250	XT 225	CRF 250 L	XT 250	KLX 250 S	WR 250 R	KLR 250	DR 350 SE	DR-Z 400 S	XT 350	DR 650 S	KLR 650	XR 650 L
Ground Clearance	XR 650 L	WR 250 R	DR-Z 400 S	DR 350 SE	XT 225	XT 250	KLX 250	KLX 250 S	CRF 250 L Rally	XT 350	KLR 250	TW 200	KLX 230	DR 650 S	DR 200 SE	CRF 250 L	CRF 230 L	KLR 650
Suspension Travel	DR-Z 400 S	XR 650 L	WR 250 R	CRF 250 L Rally	DR 350 SE	DR 650 S	KLX 250	KLX 250 S	XT 350	CRF 250 L	KLR 250	KLX 230	XT 250	DR 200 SE	CRF 230 L	KLR 650	XT 225	TW 200
Brakes (Disc vs. Drum)	CRF 230 L	DR 350 SE	XT 250	KLX 230	WR 250 R	KLX 250 S	KLX 250	DR-Z 400 S	CRF 250 L	CRF 250 L Rally	XR 650 L	DR 650 S	KLR 650	XT 225	DR 200 SE	TW 200	KLR 250	XT 350
Tire Sizes	CRF 230 L	XT 250	DR 200 SE	XT 225	KLX 230	KLX 250 S	KLX 250	CRF 250 L Rally	CRF 250 L	WR 250 R	XT 350	DR 350 SE	DR-Z 400 S	XR 650 L	KLR 250	KLR 650	DR 650 S	TW 200
Aftermarket Support	KLR 650	DR 650 S	XR 650 L	DR-Z 400 S	CRF 250 L	WR 250 R	CRF 250 L Rally	DR 200 SE	XT 250	TW 200	KLX 250	KLR 250	KLX 230	XT 225	CRF 230 L	DR 350 SE	XT 350	
MSRP (New)	XT 225	KLR 250	DR 350 SE	CRF 230 L	TW 200	KLX 230	DR 200 SE	KLX 250 S	XT 250	CRF 250 L	KLX 250	CRF 250 L Rally	XT 350	WR 250 R	DR 650 S	KLR 650	DR-Z 400 S	XR 650 L

\*Each bike was given a score of 1-18 in each of the 22 spec categories with 18 being the best and 1 being the worst.

\*\*The minimum possible score was 22, the maximum possible was 396.

Overall Scores and Findings	HONDA - RED HEADS				KAWASAKI - TEAM GREEN				SUZUKI - YELLOW FELLOWS				YAMAHA - BLUE CREW					
Overall Scores	CRF 230 L	CRF 250 L	CRF 250 L Rally	XR 650 L	KLX 230	KLR 250	KLX 250 S	KLX 250	KLR 650	DR 200 SE	DR 350 SE	DR-Z 400 S	DR 650 S	TW 200	XT 225	XT 250	WR 250 R	XT 350
Overall Rankings	WR 250 R	XT 250	CRF 250 L	CRF 250 L Rally	KLX 230	KLX 250	DR 350 SE	DR 650 S	DR-Z 400 S	XT 225	CRF 230 L	KLX 250 S	DR 200 SE	XR 650 L	KLR 650	KLR 250	XT 350	TW 200

What was the difference between the highest and lowest scores?

84

Manufacturer rank by average score for overall specs:

216.75      212      205.8      203.6

Of the top 10 bikes, which ones do I actually expect to be able to find within my budget?

XT 250      CRF 250 L      DR 350 SE      DR 650 S      DR-Z 400 S      XT 225

Focused Specs Rankings	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Wet Weight	CRF 230 L	XT 225	DR 200 SE	TW 200	DR 350 SE	XT 250	KLX 230	WR 250 R	KLR 250	KLX 250 S	XT 350	KLX 250	DR-Z 400 S	CRF 250 L	CRF 250 L Rally	XR 650 L	DR 650 S	KLR 650
Seat Height	TW 200	XT 250	XT 225	CRF 230 L	DR 200 SE	KLR 250	XT 350	CRF 250 L	KLX 230	KLX 250 S	DR 650 S	DR 350 SE	KLX 250	KLR 650	CRF 250 L Rally	WR 250 R	DR-Z 400 S	XR 650 L
Starter (Electric vs. Kick)	WR 250 R	KLX 250	CRF 250 L	CRF 250 L Rally	XT 250	KLX 230	DR-Z 400 S	KLX 250 S	KLR 650	DR 650 S	XT 225	DR 350 SE	TW 200	DR 200 SE	CRF 230 L	XR 650 L	KLR 250	XT 350
Fuel Injected vs. Carbureted	WR 250 R	KLX 250	CRF 250 L	CRF 250 L Rally	XT 250	KLX 230	DR-Z 400 S	KLX 250 S	KLR 650	XT 225	TW 200	DR 350 SE	DR 650 S	DR 200 SE	CRF 230 L	XR 650 L	KLR 250	XT 350
Engine Cooling	KLX 230	XT 350	DR 650 S	XT 250	XT 225	DR 200 SE	TW 200	CRF 230 L	XR 650 L	DR 350 SE	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 250 S	KLR 650	KLR 250	DR-Z 400 S	WR 250 R
Horsepower	DR 650 S	XR 650 L	KLR 650	DR-Z 400 S	DR 350 SE	XT 350	WR 250 R	KLR 250	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 250 S	KLX 230	XT 225	DR 200 SE	XT 250	TW 200	CRF 230 L
Top Speed	XR 650 L	DR 650 S	KLR 650	DR-Z 400 S	DR 350 SE	XT 350	WR 250 R	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 230	KLX 250 S	XT 250	KLX 250 S	XT 225	CRF 230 L	TW 200	DR 200 SE
Oil Change Intervals	CRF 250 L	CRF 250 L Rally	KLX 250	KLX 230	KLX 250 S	KLR 650	KLR 250	XT 350	DR-Z 400 S	DR 650 S	WR 250 R	XT 250	XT 225	DR 200 SE	CRF 230 L	XR 650 L	DR 350 SE	DR 350 SE
Valve Check Intervals	WR 250 R	CRF 250 L	CRF 250 L Rally	DR-Z 400 S	KLR 650	KLX 250	KLX 230	KLX 250 S	DR 650 S	XR 650 L	CRF 230 L	XT 350	XT 250	XT 225	DR 200 SE	TW 200	KLR 250	DR 350 SE
Valve Adjust. (Shim vs. Nut)	CRF 230 L	DR 200 SE	TW 200	XT 250	XT 225	DR 650 S	XR 650 L	KLR 250	DR 350 SE	KLX 230	WR 250 R	CRF 250 L	CRF 250 L Rally	KLR 650	DR-Z 400 S	KLX 250	KLX 250 S	XT 350
Fuel Capacity	KLR 650	DR 200 SE	DR 650 S	XT 350	KLR 250	XR 650 L	CRF 250 L Rally	XT 250	DR-Z 400 S	DR 350 SE	CRF 230 L	XT 225	CRF 250 L	KLX 230	KLX 250	KLX 250 S	WR 250 R	TW 200
Fuel Economy	CRF 230 L	TW 200	DR 200 SE	KLX 230	CRF 250 L Rally	KLX 250	XT 225	CRF 250 L	XT 250	KLX 250 S	WR 250 R	KLR 250	DR 350 SE	DR-Z 400 S	XT 350	DR 650 S	KLR 650	XR 650 L
Ground Clearance	XR 650 L	WR 250 R	DR-Z 400 S	DR 350 SE	XT 225	XT 250	KLX 250	KLX 250 S	CRF 250 L Rally	XT 350	KLR 250	TW 200	KLX 230	DR 650 S	DR 200 SE	CRF 250 L	CRF 230 L	KLR 650
Suspension Travel	DR-Z 400 S	XR 650 L	WR 250 R	CRF 250 L Rally	DR 350 SE	DR 650 S	KLX 250	KLX 250 S	XT 350	CRF 250 L	KLR 250	KLX 230	XT 250	DR 200 SE	CRF 230 L	KLR 650	XT 225	TW 200

\*Each bike was given a score of 1-18 in each of the 14 spec categories with 18 being the best and 1 being the worst.  
 \*\*The minimum possible score was 14, the maximum possible was 252.

Focused Scores and Findings	HONDA - RED HEADS				KAWASAKI - TEAM GREEN					SUZUKI - YELLOW FELLOWS				YAMAHA - BLUE CREW					
	CRF 230 L	CRF 250 L	CRF 250 L Rally	XR 650 L	KLX 230	KLR 250	KLX 250 S	KLX 250	KLR 650	DR 200 SE	DR 350 SE	DR-Z 400 S	DR 650 S	TW 200	XT 225	XT 250	WR 250 R	XT 350	
Focused Scores	117	148	154	127	148	112	118	142	118	126	128	142	145	112	133	150	152	122	
Focused Rankings	CRF 250 L Rally	WR 250 R	XT 250	CRF 250 L	KLX 230	DR 650 S	DR-Z 400 S	KLX 250	XT 225	DR 350 SE	XR 650 L	DR 200 SE	XT 350	KLX 250 S	KLR 650	CRF 230 L	KLR 250	TW 200	
What was the difference between the highest and lowest scores?	42																		
Manufacturer rank by average score for focused specs:	136.5	135.25	133.8	127.6															
Of the top 10 bikes, which ones do I actually expect to be able to find within my budget?	XT 250	CRF 250 L	DR 650 S	DR-Z 400 S	XT 225	DR 350 SE													

Overall vs. Focused Rankings																			
Overall	WR 250 R	XT 250	CRF 250 L	CRF 250 L Rally	KLX 230	KLX 250	DR 350 SE	DR 650 S	DR-Z 400 S	XT 225	CRF 230 L	KLX 250 S	DR 200 SE	XR 650 L	KLR 650	KLR 250	XT 350	TW 200	
Focused	CRF 250 L Rally	WR 250 R	XT 250	CRF 250 L	KLX 230	DR 650 S	DR-Z 400 S	KLX 250	XT 225	DR 350 SE	XR 650 L	DR 200 SE	XT 350	KLX 250 S	KLR 650	CRF 230 L	KLR 250	TW 200	
Rank Went Up	CRF 250 L Rally	XR 650 L	DR 200 SE	DR-Z 400 S	DR 650 S	XT 225	XT 350												
Rank Went Down	CRF 230 L	CRF 250 L	KLR 250	KLX 250 S	KLX 250	DR 350 SE	XT 250	WR 250 R											
Rank Stayed the Same	KLX 230	KLR 650	TW 200																

Bikes in Both Top 10 Rankings	CRF 250 L	CRF 250 L Rally	KLX 230	KLX 250	DR 350 SE	DR-Z 400 S	DR 650 S	XT 225	XT 250	WR 250 R
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\*The same 10 bikes are in both Top 10 lists, which suggests they are by far the best bikes for my needs.  
 \*\*Bikes from all manufacturers made the comprehensive Top 10 list, and they did so in essentially equal proportion.

Used Bikes Within Budget	CRF 250 L	DR 350 SE	DR-Z 400 S	DR 650 S	XT 225	XT 250
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My Subjective Rankings	XT 250	DR 350 SE	CRF 250 L	DR-Z 400 S	XT 225	DR 650 S
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\*Every time I look over the subjective rankings I struggle to solidify spots 2-4. Each bike has its own suite of pros and cons, but this will be my final assessment.  
 \*\*These final subjective rankings are based on the assumption I can find used units of each bike in relatively equal condition for similar prices.

## Interesting Observations

- Honda, the conservative company it is, tends to favor reliability and a durability over performance. Even so, the Red Heads still managed to land two bikes in my top 10 and 1 in my top 4.
- Honda also averaged the highest score across all of its models in both comparisons. This proves the *right* features, rather than the *most unique* features, are the name of the game in dual sport riding.
- Kawasaki is the only manufacturer not represented in my final top 6 bikes. However, Team Green's KLX 230 and KLX 250 models are clearly great contenders, but they are too new to the market for there to be used units within budget.
- Aside from a rear drum brake and solely relying on kick starting, Kawasaki's long since discontinued KLR 250 still competes well against many of the newer machines and is still worthy of consideration at the right price.
- Suzuki's DR 650 S scored higher than its more highly regarded little brother, the DR-Z 400 S, in both comparisons, but both of the Yellow Fellows made my top 6 list with the DR-Z earning a higher subjective ranking.
- Suzuki's DR-Z 400 S officially supplanted its predecessor, the DR 350 SE, in 2001, but it wasn't much of an improvement in my mind. I still prefer the 350's lighter weight and air/oil cooled engine design.
- Even with its carburetor, minimal horsepower, and rear drum brake, Yamaha's little XT 225 was able to slip into my top 6 bikes worth considering. Again, this reiterates it doesn't take an oversized technological marvel to get the job done and have a great time.
- With so much online debate between the WR 250 R and DR-Z 400 S, I expected it to be a tighter race between the two bikes, but the Blue Crew's WR shined through with its lighter weight and fuel injected engine.

## Summary

As explained in the beginning of this study, Japan's Big Four motorcycle manufacturers collectively do a great job of providing diverse dual sport options with few standouts. This is evidenced by the narrow ranges between the highest and lowest scores in both the overall and focused comparisons. In the overall comparison, the lowest scoring bike only averaged a rank of 4 spots lower than the highest scoring bike across all specs categories. In the focused comparison, the lowest scoring bike only averaged a rank of 3 spots lower than the highest scoring bike across all specs categories. Furthermore, the number of bikes represented from each manufacturer are in essentially equal proportion in the comprehensive Top 10 list.

In comparing specs, I tried to be as objective as possible, but most categories forced me to implement one or more tie breakers as well as entertain some of my own preconceived preferences, perceptions, and gut feelings. This leaves room for debate and different results if I were to complete the study all over again, though I doubt the results would be significantly different. None of the considered dual sports are perfect, but the Japanese engineers know how to strategically design bikes with a price point and niche in mind, and they execute those particular points of emphasis to perfection. With all of these specs and comparisons available it's easy to get overly wrapped up in the numbers, but none of it really matters in the end. Really, the only thing that matters is which bike I decide fits me the best after I sit on all of them and take as many test rides as possible.

This means I could come home with a bike that didn't even make my top 6 list. Despite my time spent compiling and comparing all the quantitative data, my qualitative preferences could be the only things that matters in the end...and a low pricetag from the right seller. Until then, it's time to start shopping around for a new set of wheels.

Which bikes do you think I should target?

Signing off,

*Motorcycle Maichak*

