

Purchase of a Replacement Fleet Vehicle

1. Purpose of the report

This report is intended to provide a summary of the officers' additional research to find a suitable replacement vehicle to tow the Authority's RIB *David Rowe*.

The report identifies the vehicle that officers believe is most suitable for the required purpose.

2 Background

An officer's report on the options to purchase or hire a replacement 4x4 vehicle to tow the Authority's RIBs was presented at the F&GP meeting on 12th September 2019. Members did not agree with the officers' preferred choice of vehicle as it did not represent value for money.

Members did agree that the Authority should purchase rather than continue to lease a 4x4 vehicle but recommended that officers work with DCC procurement team and provide a further report.

Officers did engage with DCC's procurement team and have used DCC's Vehicle Annualised operating table attached in Annex 1 to this report to compare most of the 4x4 vehicle available on the market. DCC procurement team advised that for a single vehicle, purchase through the Crown Commercial Services offered the best discount.

Officers had already test driven most of the available 4x4 to assess performance in towing the trailer and RIB but had not considered the automatic version of the Nissan Navara Tekna.

After test driving the Nissan Navara Tekna, officers reported that the vehicle's performance was close to that of the Mercedes X class. The officer's performance report on the other vehicles, attached as Annex 2 to this report, had identified the Mercedes as the most suitable vehicle for the Authority's needs.

3. Officers' advice

DCC procurement team recommendation was for the Authority to consider using DCC preferred 4x4 vehicle, the Toyota Hilux. This vehicle performed badly in the officers' test drives and a lack of power meant that it struggled to tow a trailer and the RIB *David Rowe* up quite modest inclines.

The main concern that members had was the contrast in price between the officers' preferred vehicle and DCC's main 4x4 fleet which led to questions being raised over value for money.

Officers maintain that the Toyota Hilux is not suited to the Authority's specific towing needs, but the Nissan Navara does meet those requirements and the total purchase price is slightly less than the Toyota Hilux. The annual operating costs for the Nissan Navara are estimated to be approximately £300 higher than the Toyota Hilux.

It is recommended that the Authority purchase a Nissan Navara Tekna through Crown Commercial Services.

Annex 1

Vehicle Annualised Cost of Ownership

	Category	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	Vehicle 5
a	Make	Mercedes	Nissan	Ford	Toyota	Isuzu
b	Model	X Class	Navara	Ranger	Hilux	D_max
c	Variant	350D	Tekna	Wildtrack	Invincible	Blade
d	Variant Rank (variant position over base vehicle)	4th out of 4	6th out of 10	4th of 5	3rd of 4	5th of 5
e	Vehicle Cost	£39,510.00	£22,792.50	£31,195.00	£21,141.00	£25,589.00
f	Tow Bar & Electrics	£990.00	£1,240.00	£400.00	£499.00	£695.00
g	Other Extras	£6,937.00	£2,047.50	£4,155.00	£4,549.17	£1,245.00
h	Total Purchase Cost	£47,437.00	£26,080.00	£35,750.00	£26,189.17	£27,529.00
i	Expected Service Life (years used by service)	5.0	5.0	5.0	5.0	5.0
j	Residual Value at End of Service Life	£25,000.00	£14,500.00	£18,900.00	£15,500.00	£12,000.00
k	Fuel Type (petrol, derv, lpg, electric)	Diesel	Diesel	Diesel	Diesel	Diesel
l	Combined MPG (google search)	31.4	31.7	29.7	39.2	36.2
m	Annual Miles (identify expected use)	8,000	8,000	8,000	8,000	8,000
n	Fuel £/litre	£1.30	£1.30	£1.30	£1.30	£1.30
o	Emissions (g/km)	236.00	235.00	248.00	189.00	205.00
p	Car Tax Band					
q	Annual Car Tax	£260.00	£260.00	£260.00	£260.00	£260.00
r	MOT Class	4	4	4	4	4

	Category	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	Vehicle 5
s	MOT - £/yr	£54.85	£54.85	£54.85	£54.85	£54.85
t	Insurance Group (google)	41E	41E	44E	41E	40A
u	Annual Insurance Cost (money supermarket)	£0.00	£0.00	£0.00	£0.00	£0.00
v	Average Service Cost (dealer)	£235.00	£200.00	£427.75	£300.00	£352.00
w	Service Interval (dealer)	10,000	12,500	10,000	10,000	12,000
x	Full Tyre Set Replacement Cost (tyre supplier)	£536.00	£480.00	£652.00	£624.00	£560.00
y	Tyre Life (miles)	20,000	20,000	20,000	20,000	20,000
z	Annual Repair & Maintenance allowance	£0.00	£0.00	£0.00	£0.00	£0.00
	Annualised Cost of Ownership per year	£ per year	£ per year	£ per year	£ per year	£ per year
i	Depreciation	£4,487.40	£2,316.00	£3,370.00	£2,137.83	£3,105.80
ii	Fuel	£1,490.45	£1,476.34	£1,575.76	£1,193.88	£1,292.82
iii	Oil, lubricants & fluids	£74.52	£73.82	£78.79	£59.69	£64.64
iv	Servicing	£188.00	£128.00	£342.20	£240.00	£234.67
v	MOT Tests & Safety Inspections	£54.85	£54.85	£54.85	£54.85	£54.85
vi	Repairs & Maintenance	£0.00	£0.00	£0.00	£0.00	£0.00
vii	Tyres	£214.40	£192.00	£260.80	£249.60	£224.00
viii	Insurance	£0.00	£0.00	£0.00	£0.00	£0.00
	Total	£6,509.62	£4,241.01	£5,682.40	£3,935.86	£4,976.78

Annex 2



Replacement Vehicle Report to tow the Authority's Rigid Inflatable Boat (RIB) David Rowe

IFCO Kelly Hobson

Current Ford Ranger

In November 2015 D&S IFCA began a lease agreement with Ford for a 3.2 Wildtrack to tow the Authorities Rigid Inflatable Boat (RIB) Enforcer which is 6.4 meters long. This consisted of an initial payment of £1347.19 (inc VAT) and then 47 payments of £449.06 (inc VAT) making a total of £22,453.01 (inc VAT). We have also paid an additional £98.81 (inc VAT) per month for a maintenance agreement, this has included service and replacement tyres making a total of £4,644.07 (inc VAT).

Had we purchased the Ranger and not taken a service pack we would have spent between £360 and £450 (inc VAT) on a service each year. The front brakes and discs were replaced in 2017 and 2018 at a cost of £520 (inc VAT) each time and the callipers were changed out of the warranty period at a cost of £345 (inc VAT). There was also an MOT in 2018 and prior to it being returned there will be another service and MOT in September 2019. This a total cost between £2,925 and £3,285 (inc VAT) over the 4-year lease. As explained below Ford do not currently offer a service plan at this current time for purchased vehicles.

The purchase price on the Ranger would have been £34,195 (inc VAT) in 2015 (without the Crown Commercial Discount). To sell a Ford Ranger 3.2 Wildtrack Auto today with 27,000 miles as ours has covered you would expect to achieve £18,900 (inc VAT) (parkers used vehicle valuation).

Towing David Rowe and Enforcer

In February 2019 D&S IFCA took delivery of the new 8-meter RIB David Rowe. This vessel is longer, wider, and most importantly heavier than Enforcer. Due to the way D&S IFCA operate, David Rowe was designed and built to be towed around our district as Enforcer has been. David Rowe provides many benefits to Enforcer including sea capability and comfort to officers with the hull and wheelhouse. The Ranger was the ideal vehicle for towing Enforcer and has been able to cope with the extra weight of David Rowe, but it compromised comfort to passengers in the rear of the cab. David Rowe is trailered full of fuel ready to deploy as Enforcer was, this takes the total weight to 3.4 ton. The combined weight of Enforcer is not known but it is a considerable amount lighter and smaller than David Rowe.

The lease for the Ford Ranger ends at the end of October 2019 and I have been tasked with evaluating and comparing new vehicles to replace it.

Possible Replacement Vehicles

The number of vehicles with the ability to tow a trailer as heavy as David Rowe is quite limited. We decided against test driving the Nissan Navara due to reports of issues with the clutch. Senior Enforcement Officer Gavin Mayhew reported that the coastguard had stopped using the Nissan due to this issue. The vehicles left were the Toyota Hilux, Ford Ranger, Mercedes X-Class, Landrover Discovery and Isuzu D-Max. Each vehicle was provided for a test drive with the time to tow David Rowe to establish if they were capable of towing the 3.5 ton they claimed to.

Test Drives

Enforcement Officer Daniel Cresswell has provided the following report on the test drives.

It should be noted that the towing capacity for the vehicles tested is not related to engine power but is the breaking capacity of the vehicles. The vehicles reviewed below have a breaking capability to tow the 3.4-ton David Rowe when on a braked trailer.

Ford Ranger 2.0 ltr Bi-turbo Auto

Due to the push for vehicles to be more fuel-efficient Ford created this replacement for the 3.2 ltr Ford Ranger Wildtrack that we currently have. Ford claim that BHP from the 2.0ltr engine Bi-Turbo is similar to the 3.2 Wildtrack. However, the power was underwhelming when trialled whilst towing the David Rowe. The vehicle felt as though it was struggling to pull the load up any incline and it was noted that the automatic 8 speed box shifted through gears significantly to find adequate power.

The cabin comfort was compromised as it is in the current Ford Ranger where the nose weight of the hitched vessel puts pressure on the leaf springs causing the occupants to be bounced vigorously during transit making travelling uncomfortable.

The on-board technology had been updated and the vehicle had a trailer assist function which should prevent the trailer from snaking behind the vehicle. The steering, although extremely light, felt as though it was being held in positions at times when cornering which created a feeling of distrust in the functionality of the vehicle. When officers asked the Ford rep about this, he appeared indifferent, unaware of what that might have been. The salesperson also stated that if the lack of power was a problem then the Ranger Wildtrack was still available to purchase which is the same model as we currently have but with a facelift and an upgraded entertainment system.

We have had the Ford Ranger Wildtrack for the last 4 years and this was on lease for the intention of towing the much lighter vessel Enforcer and the power output was sufficient for towing that vessel. Shortly after receiving the Ranger it developed an engine management fault that could not be diagnosed for approximately 1 year which resulted in the vehicle spending a lot of time in the garage. Ford aftersales and care was poor with an attitude that it was down to us to undertake return trips to the Ford garage in our own time which resulted in Enforcement patrols not being undertaken. At no point was a replacement vehicle offered.

Land Rover Discovery HSE HD4 Auto (2.0ltr)

As mentioned above due to industry's demand for fuel efficiency, Land Rover produced the Discovery HSE HD4 2.0ltr Auto. However, the difference in towing capability between the Ford Ranger (previously trialled) and the Discovery was that the Discovery was at ease when towing the David Rowe. There was enough power readily available on the flat and during incline. Having not experienced the towing ability of a Land Rover I was pleasantly surprised and reassured in peoples' claims that it is best vehicle for towing.

The ride was smooth, and the vehicle did not present as though it was towing a large weight behind the vehicle with no noticeable bounce within the cabin.

On-board technology was vast with built in [Waze](#) (owned by Google) where traffic reports are live as reported by other users and vehicles. The Sat Nav was a replica of google maps and it was easy to use as well as 'street view' being readily available. The major downside to the Discovery was that it did not have a separate cab and instead had a boot space which renders its usage very similar to that of a car. This would not be a practical choice of vehicle for this reason alone as officers are sometimes required to transport dirty nets, pots, and other fishing apparatus that with

the Discovery would be in the vehicle with them. The boot space is also inadequate in size in comparison to the capabilities of all the pickups.

Toyota Hilux Invincible 2.4 TD

Toyota do not seem to have improved upon the model that I trialled 4 years ago when eventually deciding up on the Ford. The vehicle presents with a modern facelift which is comparable to the Ford Ranger, but I feel this is the only competition it offered in comparison to the other tested vehicles.

The technology within was outdated which was disappointing for a new vehicle. It appeared as though an old galaxy tablet had been mounted to the dash. The technology was not navigable due to a major lag when being used. The reason this point is significant is because this tablet was the only means of accessing the cars status regarding engine performance, tyre pressures etc. Also, there was no on-board navigation available.

Although I was not present for the towing test with the David Rowe, officers have reported that the vehicle really struggled when under load whilst towing. There was a power button mounted near the dash but when pressed this had little effect.

Upon receiving the vehicle, the salesperson confirmed that several fishermen had bought this particular model and I am sure it is capable of transporting lighter loads, but it could not handle the weight of the David Rowe. I am sure this vehicle is suited for the farming and fishing industry, but I feel our requirements are niche and unfortunately Toyota have not been able to deliver again.

Mercedes X 350 d V6 4MATIC Power Auto

Admittedly, I was initially concerned that Mercedes would not be able to deliver a pickup that could compete with the already well establish market.

Although the Mercedes had the larger engine of the vehicles trialled, its economy was not dissimilar to the other pickups. The MPG were marginally less but this was dismissed during towing trials where the towing experience was comparable with the Discovery. The Mercedes took on hills with an attitude that it was capable of towing more than the David Rowe. The ride was smooth with no bounce that was present in the other pickups and this is due to the Mercedes having coiled spring suspension rather than the leaf suspension present in most pickups.

The truck had a 360 camera so the driver could view all around the vehicle on the dash which is a handy safety feature when manoeuvring a large combination. There were also front and rear cameras which were activated automatically when reversing but could also be turned on independently which is an added safety feature for the driver being able to view the coupling and if everyone is clear before pulling away. The onboard navigation system was easy to use as well as the other features.

Mercedes also offer 30 years roadside recovery as standard with the sale of their vehicles which offers piece of mind that the vehicle will be reliable.

The only negative with the Mercedes was that the loading area appeared unfinished and would require a liner which can be specified when ordering.

For security we would need the loading area enclosed for security when transporting kit and this would be an added extra for any of the pickups.

Isuzu D-MAX Blade 1.9 diesel Auto

The Isuzu felt like a merge of the Toyota Hilux and the Ford Ranger, yet it lacked any originality and appeared to have copied attributes of both. The Isuzu would have benefitted with an engine from the Ford Ranger as it failed at the towing test and could not find additional power to pull the David Rowe out of Kingswear. Interestingly the Isuzu used gear breaking when on a slight decline without the accelerator depressed, however this did not activate on the decent into Kingswear where the decline is significant. The auto gear box selection seemed to be almost random with no difference in available power when the gearing kicked down in order to tackle hills.

The steering felt disconnected from the road which felt as though I was oversteering and that at times, I was not fully in control of the vehicle. The vehicle was noticeably louder than the other vehicles tested, and this noise increased significantly when I was driving back towards Brixham when I thought the engine or turbo had suffered significant damage.

The loading area is as expected with a truck of this size and was very similar to the other trucks tried with the same anchor points and additional feature that could be added as optional extras.

The electronic package was similar to the Hilux in that it appeared as though a tablet had been stuck to the dash. However, the display was more user friendly in comparison to the Hilux and like the other trucks there was a reversing camera available. The resolution of the screen was not as high as the Ford Ranger, Mercedes, or Land Rover.

The ride comfort was significantly compromised by the vehicle having leaf springs as mentioned previously in this review. This vehicle was the most uncomfortable to sit in during transit and whilst stationary with less room for the rear passengers.

In Summary

The Isuzu D-max and Toyota Hilux did not have the towing capacity they claimed to have and would not be suitable to tow David Rowe. The Landrover Discovery was more than capable of towing David Rowe but has been discounted due to the boot not being separate to the passenger area. The best towing truck tested was the Mercedes X-Class, its capability was on a par with the Landrover Discovery and exceeded that ability of the other vehicles tested, it was also the most comfortable for all passengers particularly those in the rear seats of the cabin. The current Ford Ranger 3.2 Wildtrack is capable of towing David Row but only just, it does struggle. The Ranger lacks the power the X-Class provides and overall comfort for passengers is poor, there is the same bouncing as our current Ranger which is unforgiving on long journeys in the rear seats. The X-Class can tow David Rowe without struggling, it still had power to give when on a steep incline where all the other trucks would hit the top and then begin to struggle. It was a comfortable ride for all passengers including those in the rear seats with no bounce at all. Overall the Mercedes X-Class is far and away the preferred option of the enforcement team.

Crown Commercial Service (CCS)

D&S IFCA purchased the Skoda vehicles through the Government Procurement scheme, Crown Commercial Services. This allows for the purchase of vehicles at a discounted price. There is no minimum time you must retain the vehicle for, you can keep them for years and years or you could sell and replace after 3 or 4 years depending on market value and invest in a new vehicle.

Vehicle Quotes

I have requested that the quotes include some extras so the specifications between the Ford Ranger and the Mercedes X-Class are comparable.

The Ford Ranger

A quote was requested for the 3.2 Wildtrack based on the review of the 2.0 that was tested. This model includes many of the options we would like in the vehicle such as reversing camera, parking sensors and sat nav. The only added options needed would be the front and rear tow bars and the Driver assist package which includes adaptive cruise control, driver alert system, auto high beam and head up warning.

Purchase Quotes

There are two purchase prices from Ford. The first is from Ford Direct and the only way to have the CCS discount applied, however the wait time for delivery is 23-27 weeks.

Description	Price	Inc VAT
Vehicle	31195.00	
Box Bedliner	250.00	
Driver assist pack	1125.00	
Trailer Tow pack	400.00	
Sea Grey Paint	500.00	
Delivery	475.53	
Less Discount	-7807.47	
Total	26138.00	
Front Tow Bar	350.00	
Rear canopy	1750.00	
VAT @20%		5647.61
First Registration Fee	55.00	-
12-month Road Fund Licence	260.00	-
Final Total	28553.00	34200.67

To wait for this vehicle to be delivered we could extend the lease of our current ranger. That would be at a cost of £379.93 ex VAT including the service pack for 12 months making a total of £4,559.16.

The second is from the local dealer and can be supplied in approximately 6 weeks.

Detail	Price	VAT	Total
Vehicle	31195.00	6239.00	37434.00
Delivery	475.53	95.11	570.64
Registration Fee	55.00	-	55.00
Driver assistance pack	1150.00	230.00	1380.00

Trailer tow pack	400.00	80.00	480.00
Load box bedliner	250.00	50.00	300.00
12 Month Road Fund Licence	260.00	-	260.00
Front Tow bar	350.00	70.00	420.00
Canopy	1750.00	350.00	2100.00
Discount	-2667.60	-533.52	-3201.12
Sea Grey Paint	500.00	100.00	600.00
TOTALS	33717.93	6680.59	40398.52

For the service of the Ranger I have been provided with the current cost for the first 4 services as below, there is no service plan available.

Year 1 service	401.12 ex VAT	481.31 inc VAT
Year 2 service	450.51	540.61
Year 3 service	410.62	492.74
Year 4 service	450.51	540.61

Hire Quote

A quote has been supplied to lease the vehicle with the same spec as above. The vehicle will not be owned at the end of the 4-year agreement. This would be for 10,000 miles a year with 11.64 pence per mile excess.

This is the initial Rental:

Item	Price	VAT	Total
Initial Payment	1442.40	288.48	1730.00
Full Ford Lease Maintenance	44.46	8.89	53.35
Total	1486.86	297.37	1783.35

Then the remaining 47 months would be

Item	Price	VAT	Total
Rental	436.34	87.27	523.61
Full Ford Lease Maintenance	44.46	8.89	53.35
Total	480.80	96.16	576.96

This is a total of £24,084.46 over 4 years.

The Mercedes X-Class

The quote requested was for the 350D that was test driven. This vehicle could be delivered in an estimated 6 weeks.

Purchase quote

Description	Price	VAT	Total
Variant Price	39510.00	7902.00	47412.00
Delivery Price	850.00	170.00	1020.00
Brilliant Silver	-	-	-
12 Month Road Fund Licence	260.00	-	260.00
Supply and fit mud flaps	100.00	20.00	120.00

First Registration Fee	55.00	-	55.00
Supply and Fit Mats	50.00	20.00	50.00
Style Package	1015.00	203.00	1218.00
Parking package	970.00	194.00	1164.00
Rear and detachable front tow	990.00	198.00	1188.00
Hard Top Rear	2998.00	599.00	3597.00
Bed Liner	449.00	89.00	538.00
SD Garmin Card (sat nav)	450.00	90.00	540.00
Discount	-6021.00	-1204.200	-7225.20
TOTALS	41676.00	8272.20	49948.20

The style package includes privacy glass, electric rear windows, roof rails and anodised 19 inch six-twin-spoke light-alloy wheels. The parking package includes the Parktronic parking sensors and 360° Camera to capture birds eye view of vehicles immediate surroundings. It does come with a reversing camera as standard.

The Mercedes Service and Maintenance package is a cost of £35 (ex VAT) a month. This is based on 4 years and 4 services. It does not include MOT (due when 3 years old), wear and tear repairs such as brakes, suspension, and tyres. The plan is advertised as a “basic care plan covering the labour and parts costs for the manufacturer recommended service content. The plan covers all items required on the Electronic Service Sheet (ESS). This includes brake fluid, spark plugs, oil filter, air filter etc.” The service plan for the rental agreement is a requirement and costs more as it includes all maintenance items such as brakes and suspension. Without a service plan the A service is £150 and the B service is £320, brake fluid is £75, and coolant is £75. Also, to compare with the front brakes and discs we have had replaced on the Ranger that would have cost £520, for the X-Class this is priced at £285.

Mercedes have applied a 13% discount from the CCS scheme to the purchase price of the vehicle and the factory options. The items from the dealer are not eligible for the discount are the rear canopy, bed liner and tow bars.

Hire Quote

A quote has been supplied to lease the vehicle with the same spec as above. The vehicle will not be owned at the end of the 4-year agreement. This would be for 13,000 miles a year with 17.55 pence per mile excess.

This is the initial rental:

Item	Price	VAT	Total
Initial Rental VED inc	1799.16	359.83	2158.99
Full maintenance	235.44	47.09	282.53
Total	2034.60	406.92	2441.52

Then the remaining 47 months would be

Item	Price	VAT	Total
Rental inc VED	599.72	119.94	719.66
Full maintenance	78.48	15.70	94.18
Total	678.20	135.64	813.84

This is a total of £33,910 over 4 years ex VAT.

It is hard to show the resale value of the X-Class as it is a relatively new vehicle to the Mercedes Fleet. I have researched second-hand vehicle cost and for a 350D at a year old with 10,000 miles on the clock are advertised from £36,000 and up. It must be remembered that these vehicles do not have the hard top we need which is £2998.00 extra.

The X-Class comes with a 3-year warranty and free roadside assistance for 30 years (when purchased new for the first owner).

Table of Comparisons

	Ford Ranger Wildtrack 3.2	Mercedes X-Class 350d
CO2 emissions	248	236
Fuel Consumption mpg (L/100km)	29.7	31.4
Max Speed MPH	109	127
0-62mph	10.6	7.9
Vehicle length mm	5359	5340
Vehicle width mm	2180	2113
Load box length max mm	1575	1587
Load box width mm	1560	1560
Thatcham Group rating 1-50	44E	41E

Summary

There are many aspects to look at when comparing the two vehicles but when it comes to performance and the most appropriate vehicle for the job, we need it to do then the Mercedes X-Class is the only vehicle fit for purpose. It is not the cheapest option, but it is the only vehicle that has the power to tow the weight it claims to tow without a struggle. We have spent time and money to get the best RIB for the work we need, and we now need to tow that vessel around the district with the most suitable vehicle.