

Committee: Full Council

Date: 21st February 2023

Title: Replacement of tractor and snake

Purpose of Report

To outline the reasons for the replacement, and the selection process for the new vehicle, and the expected benefits and costs associated with the replacement.

Recommendation:

Members **resolve** to approve the purchase of the Ferris 3300 for £17,200 and for the tractor and Snake Trimax valued at £10,000 to be used in part exchange.

Background:

1. The Kioti DK551C tractor with the attached Snake Trimax have been used to cut the grass on the recreation ground for the past 10 years and has logged 2,524 hours on the clock.
2. Due to its age and the number of hours it has on the clock, the vehicle has begun to experience a number of mechanical and maintenance issues, bringing into question the cost-effectiveness of continuing to use it.
3. The tractor and snake are only used during the warmer months from April to September. During the winter months they are then kept in the Warden's Buildings until the following year unused.
4. The tractor was purchased on 9th May 2011 for £18,550.00. The Snake Trimax was purchased on 28th November 2014 for £14,600.00. Annual service costs of the tractor and the snake total £1,200.00 with an additional £839.95 spent on repairs in the past year. If the council was to be faced with similar issues in the next year we would be looking at a further £2,500 expenditure and potentially higher if other unseen issues were to arise
5. There is £10,000.00 held in Earmarked Reserves for a tractor replacement, and the Town Council has agreed to add an additional £10,000 into the 2023/24 budget.
6. Reasons for Replacement:
 - High maintenance and repair costs
 - Frequent breakdowns
 - Reduced fuel efficiency
 - Inability to meet the demands of the job
 - Uses more than half the space in the main workshop

Report:

1. Choosing a replacement:

The Countryside Manager and Recreation Manager researched several different machines, including large ride on mowers, tractor trailed mowers and zero turn mowers. The investigation included:

- Research and evaluation of potential replacement vehicles
- Comparison of the features, capabilities, and costs of each potential vehicle
- Test drive of the top contenders
- Consultation with industry experts and other Councils using the machinery.

2. Why a Zero Turn Mower?

After extensive research it was concluded that a zero-turn mower would be the best fit in replacing the tractor a snake. Zero turn mowers are fast becoming the go to mowers for local authority's as they have several benefits, including:

- a. **Increased maneuverability:** The ability to turn in a zero radius allows for easy navigation around obstacles, making it ideal for mowing in tight spaces or around landscaping.
- b. **Faster mowing:** With a zero turn mower, you can cover more ground in less time, as you can cover more area with each pass.
- c. **Increased efficiency:** Zero turn mowers have a smaller turning radius, which allows you to make fewer passes when mowing, thus reducing the time it takes to mow.
- d. **Better cutting quality:** Zero turn mowers have a high-performance cutting deck that can provide a more precise and even cut, which results in a better-looking grass.
- e. **Comfort:** With zero-turn mowers, you sit in a comfortable seat and have a good control over the machine, which makes mowing a more pleasant experience

3. Potential Zero Turn Mowers

After reviewing what vehicles were available on the market three were selected based on their features and recommendations to further explore these vehicles are highlighted and compared based on cost and capabilities in the tables below

AGENDA ITEM 24

Mower	Deck width	Cutting capacity	Fuel type	Hydraulic deck	Suspension	Horse Power
Ferris 3300	183	29300	petrol	yes	Penitent Full	40
JD Z997R	183	34000	diesel	yes	Turf Airless Radial Tires	37.4
Cub Cadet Pro 2983ID	183	18000	Diesel	yes	seat	30



Mower	Manufacturer	Quoted Cost *
Ferris 3300	Ferris	£17200
JD Z997R	John Deere	£17905
Cub Cadet Pro 2983ID		£17999

- *Quotes from suppliers as highlighted above can be found in Appendix 24A*

Recommended Vehicle:

Of the Zero Turn mowers research the grounds team are recommending that the Ferris 3300 be considered by members for purchasing. It has far superior suspension that is patented, reducing vibrations significantly, and it's features significantly out perform its competitors and it is solid in construction.

Though not the cheapest option it is felt that the cub cadet pro is not built to the same quality and doesn't have the same features and support that would come with the Ferris.

Expected Benefits:

- **Reduced maintenance and repair costs:** The Ferris 3300 is designed for minimal maintenance requirements from new. It's recommended that servicing is only required from the dealer every 500 hours which is likely to be every two years.
- **Improved fuel efficiency:** Vanguard® EFI engine features reduced fuel consumption, increased power and load acceptance, optimized starting and Electronic Throttle Control. The Oil Guard™ system protects the oil from thermal breakdown extending the oil maintenance interval to 500 hours.
- **Increased safety:** the blades and deck and PTO shaft are covered, and risk is significantly reduced, because of this, in house training from a competent person.

- **Ability to meet the demands of the job:** with hydraulic deck raising and lowering, it takes a second to change the height of the deck allowing for flexibility and efficiency to meet all of our grass cutting needs.

Ferris 3300 comparison to Tractor and Snake

The table below highlights the cutting times of each machine though the Ferris is smaller it reduces the time to cut significantly and allows access to areas the tractor is too big for.

Location	Ferris	Tractor
Recreation Ground	60 mins	120mins
Britten's Field	90 mins	180mins
West Crescent	10 mins	20 mins
Winterhay	20 mins	N/A
Wharf Lane rec	30 mins	N/A

The table below compares the strength of each machine.

Ferris Strengths	Tractor Strengths
<ul style="list-style-type: none"> • Small and compact freeing up room in the Wardens Buildings. • Doesn't require external training. • Raising and lowering takes seconds. • Reduced need for servicing. • Can get in almost all grassy areas. 	<ul style="list-style-type: none"> • Cutting height can be set with precision. • Has a cab.

The table below compares the weakness of each machine.

Ferris weakness	Tractor Weaknesses
<ul style="list-style-type: none"> • Cutting height can only be adjusted in 0.25 of an inch increment. • Doesn't have a cab. 	<ul style="list-style-type: none"> • Takes up over half of the room available in the Wardens Buildings. • Requires Lantra ticket to drive. • Raising and lowering takes about half an hour. • Service costs are increasing. • Maintaining two pieces of equipment takes longer. • Too large for some areas.

Details of warranty on the Ferris

Warranty	Details
Warranty (Balance of Machine)	4-Years Limited Warranty (48 months) or 500 hours, whichever occurs first. Unlimited hours during the first 2 years (24 months)

AGENDA ITEM 24

Warranty (Coil-Over-Shocks, Suspension Related Components)	5-Years (60 months) unlimited hours
Warranty (Hydro Drive Belt, Tires, Brake Pads, Hoses, Battery, Blades)	90 Days
Warranty (Deck Drive Belt)	3-years (36 months) or 300 hours, whichever occurs first. (Parts and labor in year one; parts only in years two and three)
Warranty (Engine)	3-Year Manufacturer's Limited Warranty

Expected Costs and Delivery Times:

Ferris 3300 cost breakdown	
Supplier	Loxton's Ground Care
Selling Cost	£17,200
Part Exchange Kioti and mower (snake)	£10,000
Balance to pay	£7,200
Est. delivery time	10–15 days

Conclusion

The replacement of the current Tractor and snake with a new Ferris 3300 is necessary to ensure the efficient operation of the Open Space team. The new vehicle will provide significant benefits in terms of reduced maintenance and repair costs, improved fuel efficiency, increased safety, and the ability to meet the demands of the job. The costs associated with the replacement are expected to be offset by the overall reduced cost of ownership of the new vehicle.

Proposed resolution

Members are being asked to approve the purchase of the Ferris 3300 for £17,200 and for the tractor and Snake Trimax valued at £10,000 to be used in part exchange.

Jake Taylor
Countryside Manager
February 2023