

Species \ Attributes	Tracking Characteristics	Towing Stability	Load Stability	Adaptability	Longevity	Initial Cost Effectiveness	Long-Term Cost Effectiveness	Preventative Maintenance Requirements	Ease of Preventative Maintenance	Ease of Repair	Parts Availability	Susceptibility to Adverse Environmental conditions	Manual-Positioning Friendliness	Under-Tow-Positioning Friendliness
Tilt Type	5	1	2	2	3	4	4	4	4	4	4	4	4	2
Caster Steer	1	4	4	4	4	5	5	5	5	5	4	4	5	2
Caster Steer (Inverted Pull)	3	4	4	4	4	5	5	5	5	5	4	4	5	2
Single 5 <sup>th</sup> Wheel	1	4	3	3	3	3	3	3	3	3	3	3	4	2
Double 5 <sup>th</sup> Wheel (Standard)	3	4	3	4	3	3	3	3	3	3	3	3	3	3
Double 5 <sup>th</sup> Wheel (Ratio Steer)	4	4	3	4	3	3	3	3	3	3	3	3	3	4
Double 5 <sup>th</sup> Wheel (Ratio Steer, Active Rear Hitch)	5	4	3	4	3	3	3	3	3	3	3	3	3	5
4-Wheel Knuckle Steer (Standard)	4	4	4	4	2	3	2	2	2	1	1	2	3	3
4-Wheel Knuckle Steer (Active Rear Hitch)	5	4	4	4	1	3	2	2	2	1	1	2	3	5
4-Wheel Steer (Ratio Steer with Tensile Member Activation)	4	5	4	4	4	3	3	4	3	3	3	4	3	4
4-Wheel Steer (R.S. with T.M.A. and Active Rear Hitch)	5	4	4	4	4	3	3	4	3	3	3	4	3	5
4-Wheel Self-Steer (R.S. with T.M.A.)	4	5	4	4	4	3	3	4	3	3	3	4	3	4

Color Scale:  Very Poor  Poor  Average  Good  Excellent

Let's look at the attributes we have listed in the far right vertical column and relate each of them to what we are confronted with in the real-world industrial atmosphere.

1. Tracking Characteristics: How well each trailer species negotiates space limitations. This would include the ability to footprint the tugging device as well as its counterparts in training applications.
2. Towing Stability: The ability of the species to maintain stability at required speeds both loaded and unloaded. Specific behaviors to observe are whipping and wandering. Towing surface conditions can also be a consideration when grading stability.
3. Load Stability: Adaptability to varying load placements and centers of gravity.
4. Adaptability: User-friendliness with adequate performance under varying conditions.
5. Longevity: Usable lifetime of units while performing required tasks.
6. Initial Cost-Effectiveness: Amortization of unit cost vs. tasks performed.

7. Long-Term Cost-Effectiveness: Amortization of unit vs. tasks performed, longevity, and required maintenance.
8. Preventative Maintenance Requirements: Unit run-time vs. preventative maintenance required.
9. Ease of Preventative Maintenance: Number of points requiring preventative maintenance and ease of accessibility.
10. Ease of Repair: Complexity of repairs if required.
11. Parts Availability: Standard parts vs. custom fabrications and lead times to acquire.
12. Susceptibility to Adverse Environmental Conditions: Poor surface conditions, weather, heat, cold, chemicals, etc.
13. Manual Positioning Friendliness: Ease of manual manipulation within ergonomic guidelines.
14. Under-Tow Positioning Friendliness: Ability to position with interface equipment and spurring requirements.