

C3I TRAILER TDR'S IMPORTANT SYSTEMS

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Transportation-Trailer

TDR	1	2	3	4	5
Length	26' (10)	26' (10)	24' (9)	24' (9)	24' (9)
Price	4000 (10)	4150 (10)	4795 (9)	4295 (10)	7645 (4)
Shipping Range	Willow Grove (10)	Georgia (2)	Georgia (2)	North Carolina (3)	Sprinsdale, PA (7)
New/Used (1 or 0)	0	1	1	1	0
Total	30	23	21	23	20



Windows

CRL Horizontal Sliding Trailer Window

- \$160
 - +\$14.50 shipping
- 49-1/4" x 15-1/4"



Windows

TAFCO Mobile Home Window

- \$77.19 at Home Depot
- 30" x 27" x 1.5"
- Aluminum frame



Truck Rental

3/4 TON



Representative image
only. Not Exact Model.

Hertz Equipment Rental, Committed to [Safety!](#)

- Weight capacity: 3/4 ton available in 2WD and 4WD; Gas/Diesel models; Automatic transmission on all models; Standard, extended, and crew cabs available
- Also available: Trailer towing capabilities, utility bodies, 12' stake beds and 3-4 cu. yd. dumps.*

The rates shown are estimated retail rates for the HERC location (Store 9163, Philadelphia, Pennsylvania, (215) 749-1290) closest to your zip/postal code and are in local currency. These are subject to change based on availability, Job Location location changes, or other factors.

[VIEW RATES](#)

SELECT	SPECS	TYPICAL MAKE & MODEL	QUANTITY	START DATE	END DATE	RETAIL RATES
<input type="checkbox"/>	4WD Std Cab Pickup Diesel	Ford / F250	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$210 Weekly: \$540 4 Week: \$1,350
<input type="checkbox"/>	2WD Std Cab Pickup Diesel	Ford / F250	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	For rate information, please contact your HERC Location at (215) 749-1290
<input type="checkbox"/>	4WD Crew Cab Pickup Diesel	Ford / F250	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$255 Weekly: \$665 4 Week: \$1,699
<input type="checkbox"/>	2WD Std Cab Pickup Gas	Ford / F250	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$185 Weekly: \$525 4 Week: \$1,299
<input type="checkbox"/>	4WD Std Cab Pickup Gas	Ford / F250 GMC / 2500HD	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$210 Weekly: \$540 4 Week: \$1,350
<input type="checkbox"/>	4WD Super Cab Pickup Gas	Ford / F250 GMC / 2500	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$230 Weekly: \$580 4 Week: \$1,450

Truck Rental

1 TON



Representative image
only. Not Exact Model.

Hertz Equipment Rental, Committed to [Safety!](#)

- Weight capacity: 1 ton available in 2WD and 4WD; Gas/Diesel models; Automatic transmission on all models; Standard, extended, and crew cabs available
Also available: Trailer towing capabilities, utility bodies, 12' stake beds and 3-4 cu. yd. dumps.

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SELECT	SPECS	TYPICAL MAKE & MODEL	QUANTITY	START DATE	END DATE	RETAIL RATES
<input type="checkbox"/>	4WD Crew Cab Pickup Diesel	Ford / F350	<input type="text" value="0"/>	<input type="text" value="04/07/2013"/>	<input type="text" value="04/08/2013"/>	Daily: \$280 Weekly: \$710 4 Week: \$1,799

Truck Rental

- U-Haul
 - \$1,064.97 per month
 - Includes 3000 miles
 - Towing capacity: up to 5,500 pounds
 - Fuel economy of 19 mpg



Fuel Estimates

- One way to Houston, TX:
 - 1,500 miles
 - Ford F-250 gets about 15 mpg
 - At average gas price of \$3.50 per gallon
 - Total cost for gas would be \$350
- Generator running for two months:
 - In two months, there are 1,440 hours
 - Generator consumes 3.2 gallons per hour
 - At average gas price of \$3.50 per gallon
 - Total cost for gas would be \$16,128
 - Two weeks would be \$1,428

Generator Risk Assessment

- Generator has 16 gallon tank
- At max load, fuel consumption = 3.2 gal/hr.
 - Conclusions: 5 hours of run-time at or near max power
- Not likely operating near maximum power
 - However, this warrants necessity of external fuel storage and/or increasing mounted fuel tank size

Transportation- Registration and Insurance



- “The state doesn't offer a special registration for vehicles that are non-operational; the renewal procedure is the same as that for operational vehicles.”
 - standard renewal fee is ~ \$36
- “Laws vary by state, but in most cases trailer is covered under your vehicle's liability insurance policy”
- “If you cannot find trailer protection listed under your current policy, you should be able to obtain coverage as an add-on to your car's existing insurance plan”
 - Depending on trailer type and use, it's not uncommon to find trailer insurance for under \$75
- All according to dmv.org

Power- Generator

TDR	1	2	3	4	5
Power Output	15kW	20kW	22kW	10kW	17.5 kW
Portability	425lb with wheels	541 lbs no wheels (0)	600 lbs no wheels (0)	300 lbs with wheels	390lbs with wheels
Fuel Type	gas	propane	propane	gas	gas
Price	2399	4497	6500	1889	2699
Runtime (Full)	5hr	1.89 gallons /hr.	2.45 gallons /hr.	5.556 hr.	5hr

*All operate at or near 75dB



U.P.S.

Sound sources (noise) Examples with distance	Sound pressure Level L_p dB SPL
Jet aircraft, 50 m away	140
Threshold of pain	130
Threshold of discomfort	120
Chainsaw, 1 m distance	110
Disco, 1 m from speaker	100
Diesel truck, 10 m away	90
Curbside of busy road, 5 m	80
Vacuum cleaner, distance 1 m	70
Conversational speech, 1 m	60
Average home	50
Quiet library	40
Quiet bedroom at night	30
Background in TV studio	20
Rustling leaves in the distance	10
Hearing threshold	0

	1	2	3
Max Load	865W (5)	1050W (7)	2700W (10)
Runtime	23 min (7)	8 min (4)	?
Price	419.98 (7)	339.99(8)	1099.99 (4)
Noise	45dB (10)	50dB (9.5)	45dB (10)
Heat	200 BTU/h	275 BTU/h	550 BTU/hr.
	29	29	



Air Conditioning

TDR's	1	2	3	4
Portability	9	8	9	9
Power	1296 (10)	1920 (7)	1322.5 (9)	1357 (9)
BTU/hr(cooling)	11600 (6)	28000 (10)	14000 (8)	13000 (7)
Heat?	No	No	Yes	No
Cost	593.85 (7)	652.31 (6)	549(9)	488 (10)
Total	///	31	35	35

Heavy Duty

Haier 14,000 BTU Portable Heat / Cool LG Portable Air Conditioner

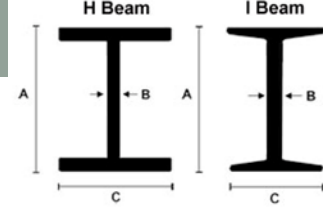


Interior of Trailer- Hubo Hoist

Hoist Trolley

TDR				
Cost	99.99	89	59	69
Weight it holds (ton)	1	1/2	1/2	1/2
Shipping cost	55.99	19.35	21	

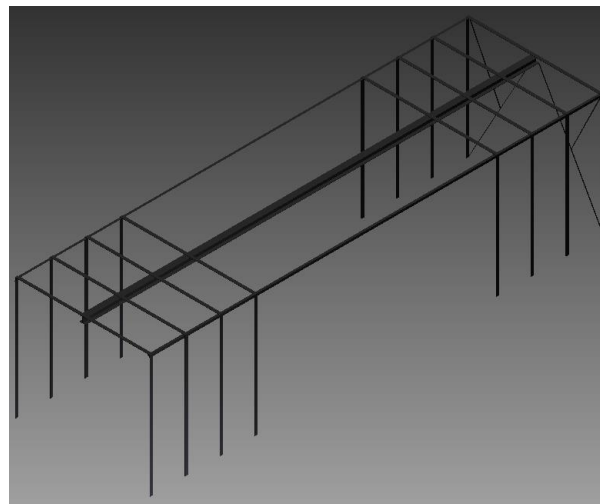
Hubo Hoist - H Beam



	Stock Number	Item Description	Size	Status	Price Each	Totals
	<input type="text" value="1"/>	B2413 W 4 x 13 lb (4.16" x .280 web x 4.06") Structural Steel H Beam	<input type="text" value="20 Ft."/>	In Stock	\$221.00	\$221.00
	<input type="text" value="1"/>	B2413 W 4 x 13 lb (4.16" x .280 web x 4.06") Structural Steel H Beam	<input type="text" value="10 Ft."/>	In Stock	\$146.20	\$146.20
	<input type="text" value="1"/>	B1357 S 3 x 5.7 lb (3.00" x .170" web x 2.33") Standard Steel I Beam	<input type="text" value="20 Ft."/>	In Stock	\$123.00	\$123.00
	<input type="text" value="1"/>	B1357 S 3 x 5.7 lb (3.00" x .170" web x 2.33") Standard Steel I Beam	<input type="text" value="10 Ft."/>	In Stock	\$83.30	\$83.30
	<input type="text" value="1"/>	B33150 3" X 2.50" X .150" web 6061-T6 Aluminum I Beam - AA	<input type="text" value="25 Ft."/>	In Stock	\$283.50	\$283.50
Sub-Total:						\$857.00
<div> <input type="text" value="19104"/> <input type="text" value="United States"/> </div> <div> <input type="text" value="School / University"/> </div>					<div> <div>Select a shipping option</div> <div> <input type="radio"/> R & L Freight \$101.20 <input type="radio"/> UPS Freight \$140.93 </div> </div>	
Shipping:						\$0.00
Total:						* \$857.00

BEAM WIDTH INCHES

2-1/2 to 5-1/2



Internet- Verizon 4G LTE USB Modem UML 295

- Plug into USB port
- \$20 w/ 2-year contract
 - \$200 month-to-month
- Monthly plan expenses:
 - \$30 for 4 GB
 - \$40 for 6 GB
 - \$50 for 8 GB
 - \$60 for 10 GB



Internet- Verizon Jetpack 4620LE Mobile Hotspot

- \$50 with 2-year contract
 - \$270 month-to-month
- Same monthly data costs
- Connect up to 10 devices on 4G, 5 on 3G



Internet- Satellite Internet

- Ground Control is a Broadband Global Area Network (BGAN) provider
- Uses either a dish or terminal to connect
- Dishes are very expensive
- Terminals are less expensive



Wideye Sabre 1 BGAN Terminal

- \$1,595
- Up to 385 Kbps
- Rechargeable Li-ion battery lasts up to 36 hours
 - Also includes AC adapter
- Ethernet output can connect to a gigabit switch or wireless router
- Plans:
http://www.groundcontrol.com/BGAN_rate_plans.htm



Trade Study

TDR's	Verizon USB Modem	Verizon Mobile Hotspot	Wildeye Sabre BGAN
Initial Cost	9	9	2
Monthly Cost	7	7	3
Speed	8	8	5
Signal Reliability	7	6	8
Durability	6	6	9
Flexibility	4	6	10
Total/60	41	42	37

Connecting Multiple Devices

TP-Link 8-Port Gigabit Switch

- \$40
- Energy efficient
- Allows 7 other devices to share same connection



ASUS RT-N16 Wireless Router

- \$90
- 802.11 b/g/n
- 300Mbps
- 4 LAN ports



Cell Phone Repeater



TDR's	Wilson Sleek 4G Five-Band Cradle	Wilson In Vehicle Amplifier Kit	Wilson RV Repeater Kit
Cost	190.00	310.00	479.95
Phone Flexibility	6	10	10
Ease of Use	7	9	10
Effectiveness	9	8	10
Range	1	3	10

Outdoor tent

TDR's	1	2	3	4
Price	\$99 (10)	\$149 (7)	\$119 (9)	\$121.28 (9)
Weight	18.2lb (9)	73.3lb (4)	76lb (4)	10lb (10)
Total	19	11	13	19



Projector Screens

	1	2	3
Mobility	42lbs tripod(7)	wall mount (1)	wall mount (1)
Price	259.99 (4)	139.99 (7)	74.99 (9)
Total	11	8	10



Safety- Belkin Anti-Static Wrist Bands

- \$7.12
- Dissipates static during electronic repair and maintenance
- Reliable static control and 360-degree protection
- Velcro wrist band adjusts to varying sizes
- Attached self-coiling grounding cord grants freedom to move and freedom from tangles

