



TOW BAR SMART BOOK



JULY 2014



**TRADOC Project Office
For Battlefield Recovery
(TPO-BR)**

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https://www.milsuite.mil/book/community/spaces/sustainnet/ordnance_community

Preface

The Tow Bars listed in this smart book are the only Army/Marine approved Tow Bars.

WARNINGS/NOTES

- **WARNING** A disabled Vehicle with caged brakes should never be like vehicle towed. In these situations dedicated recovery assets should be requested. In emergency situations where dedicated assets are not available and at the discretion of the commander; hold back braking methods may be employed by rigging equipment and devices to reduce the risk of overrunning the tow vehicle. When performing like vehicle towing operations, never proceed up or down grades greater than 20%. The weight of the disabled vehicle can push or pull the tow vehicle causing loss of control. Failure to fully assess the risks involved with towing can result in severe damage to equipment, injury or death.
- **WARNING** Do not move towing vehicle without assistance of ground guide. Ground guide must be visible to operator at all times. Failure to comply may result in damage to equipment, serious injury, or death.
- **WARNING** Do not put hands near pintle hook when aligning lunette eye with pintle hook. Failure to comply may result in serious injury, or death.
- **WARNING** When towing, ensure that all personnel are clear of vehicle before removing wheel chocks and starting vehicle towing. Use reasonable speeds for road conditions and caution when making turns. Prior to disconnecting tow bar, ensure that vehicles are on level surface with wheels chocked. Failure to comply may result in damage to equipment, serious injury, or death.
- **WARNING** The maximum speed limit when towing is 15 mph (24 km/h). Terrain, weather and other conditions may require reduced speeds. Avoid sharp turns and grades greater than 20%. On paved roads, speeds may be increased to 25 mph if conditions permit. Failure to comply may result in damage to equipment, serious injury, or death.

WARNINGS/NOTES (cont)

- **WARNING** Safety Chains with appropriate load rating must be installed when using tow bars. Chains should have safety clips (new style) on the hooks to prevent them from disconnection during towing operations. On chains without safety clips steel wire (lacing wire) can be used to secure the chain to the hook. Safety Chains must be connected only to frame tie down provisions and never to bumpers or components that can break or detach from the vehicle. Failure to install Safety Chains can result in equipment damage, serious injury or death if tow bar fails during service.
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- **WARNING** While the vehicle is being towed with a tow bar, the operator and crew are not allowed to ride in the disabled vehicle. Failure to comply may result in serious injury or death.
- **WARNING** To prevent the possibility of electrical fires; prior to towing disabled or damaged vehicles, the disabled vehicle's batteries should be disconnected to prevent short circuit fires from damaged wiring or electrical components. Some vehicles are equipped with a battery disconnect switch however, some circuits may remain active. If batteries are not accessible, identify the damaged wiring or components, isolate, and insulate them with electrical or other non conductive tape. Failure to comply may result in total loss of equipment, injury or death to personnel.
- **NOTE:** On air brake systems, only cage the emergency/parking brakes on disabled vehicle if pneumatic system is compromised and unable to maintain air pressure.
- **NOTE:** If the casualty vehicle will not hold air pressure, request dedicated wrecker support.

Things to look for before using a tow bar

- Is the tow bar safe to use; does it have all the safety pins and clips?
- Is the tow bar approved to tow the disabled vehicle?
- Is the towing vehicle equal to or greater than the weight of the vehicle being towed?
- If performing a like-vehicle tow, are the brakes on the towed vehicle operable? If not, call a wrecker.
- Check for wearing or deformation on the lunette. Measure different points of the lunette and compare them; if there is more than a 10% difference in the measurements, replace the lunette or do not use the tow bar.
- Check all surfaces of the tow bar, especially the welds, for corrosion and cracks; if found, do not use the tow bar
- Check for bent or bowed tow bar legs; if found, do not use the tow bar.
- When connected, is the tow bar level to the ground? It should not be more than 10-15 degrees above or below the tow pintle.
- Inspect tow bar pins for signs of wear. Tow bar pins should not have any play when installed. If they do, they should be replaced.
- Inspect tow bar pin holes for deformation. If found, replace the component or do not use the tow bar.
- Tow bar adapters should not have more than $\frac{1}{4}$ to $\frac{1}{2}$ inch side play when connected to vehicle tow provisions.
- Inspect tow bar adapters for cracks, damage and excessive wear. If found, replace the adapters.
- Check the tow pintle to ensure it locks properly and that the safety pin is available. Ensure that the tow pintle turns freely and is not worn excessively.

U.S. ARMY HEAVY DUTY TOW BAR

The US Army Heavy Tow Bars (2912 & 8595) do not have a Working Load Limit (WLL) do not exceed the capacity of the of the End Item M88A1/2 when used.

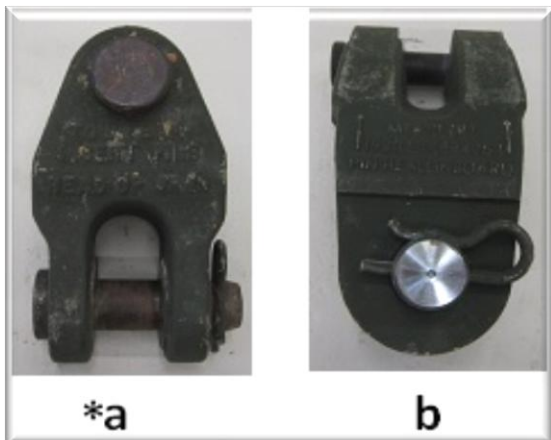
NSN: 4910-01-267-2912

WEIGHT: 300 LBS.

LENGTH WITHOUT ADAPTER: 88 IN

CAPACITY: 112,000 LBS (weight of M88A1)

END ITEM: M88A1 (HEMTT AAL)



ADAPTERS

***Comes with Tow Bar**

- a. ***10-50 Ton Med Duty 5340-01-267-2908**
- b. **2.5-10 Ton Light Duty 2540-00-863-3153**

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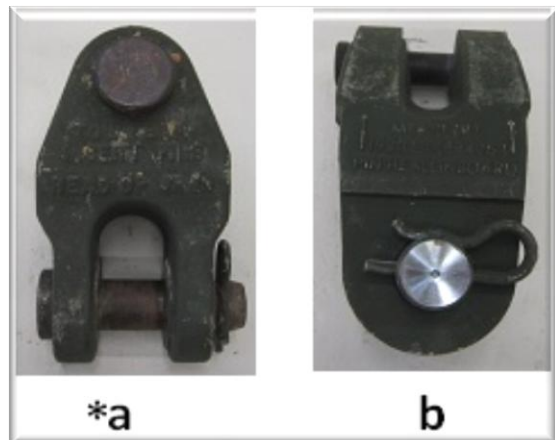
NSN: 2540-01-434-8595

WEIGHT: 282 LBS.

LENGTH WITHOUT ADAPTER: 88 IN

CAPACITY: 139,000 LBS (Weight of M88A2)

END ITEM: M88A2 (HEMTT AAL)



ADAPTERS

***Comes with Tow Bar**

- a. ***10-50 Ton Med Duty 5340-01-267-2908**
- b. **2.5-10 Ton Light Duty 2540-00-863-3153**

U.S. MARINE CORPS HEAVY DUTY TOW BAR

The US Marine Corps Heavy Tow Bars (3533) does not have a Working Load Limit (WLL), do not exceed the capacity of the of the End Item M88A1/2 when used.

(KIT) NSN: 2540-01-558-3533

WEIGHT: 300 LBS.

LENGTH WITHOUT ADAPTER: 88 IN

CAPACITY: 112,000 LBS (weight of M88A1)

END ITEM: LVSR WRECKER

Tow Bar NSN 2540-01-591-5914



Packaged as a kit

| | |
|-----------------|----------------------|
| LVSR | 2540-01-558-4053 (2) |
| HMMWV | 2530-01-520-6537 (2) |
| M809/939 | 2530-01-520-6538 (2) |
| 7 Ton | 2540-01-500-5325 (2) |
| SHACKLE | 4030-01-504-7788 (4) |
| I-V AIR LINE | 4720-01-558-4772 (2) |
| I-V ELECT CABLE | 6150-01-557-8101 (1) |
| SAFETY CHAIN | 4010-01-558-4681 (2) |

U.S MARINE CORPS MEDIUM DUTY TOW BAR

The US Marine Medium Tow Bar (8356) is designed to be used in the extended position only.
Using this tow bar in the retracted position will cause damage.

(KIT) NSN: 2540-01-496-8356

WEIGHT: 226 LBS.

LENGTH WITHOUT ADAPTER: 60 IN

CAPACITY: 83,000 LBS

END ITEM: MTRV MK36



Packaged as a kit

| | |
|--------------|----------------------|
| HMMWV | 2530-01-520-6537 (2) |
| M809/939 | 2530-01-520-6538 (2) |
| 7 Ton | 2540-01-500-5325 (2) |
| SHACKLE | 4030-01-504-7788 (4) |
| I-V AIR LN | 4720-01-254-0189 (2) |
| I-V ELEC CBL | 5995-01-772-8813 (1) |
| SAFETY CHAIN | 4010-01-520-7142 (2) |

U.S ARMY STRYKER TOW BAR

The Stryker Tow Bar (9227) is designed to be used ONLY with the Stryker FOVs.

Using this tow bar on other vehicles will cause damage to the tow bar and towed vehicle due to not having the right towing angles.

NSN: 2540-01-517-9227

WEIGHT: 150 LBS.

LENGTH WITHOUT ADAPTER: 113 IN

CAPACITY: 50,000 LBS

END ITEM: STRYKER, FOV



ADAPTERS

(Supplied with Tow Bar)

Clevis, Rod End 5340-01-051-3609

U.S ARMY M113 TOW BAR

NSN: 2540-00-936-7801

WEIGHT: 180 LBS.

LENGTH WITHOUT ADAPTER: 86 1\2 IN

CAPACITY: 68,000 LBS

END ITEM: M113 APC



a



b

ADAPTERS

(Supplied with Tow Bar)

- a. Clevis, Rod End 5340-01-051-3609
- b. Clevis, Rod End 5340-01-046-4770

U.S. ARMY MEDIUM DUTY TOW BAR

The US Army Medium Tow Bar (7296) is designed to be used in the retracted position using it in the extended position may decrease towing capacity and may cause damage to tow bar and towed vehicle.

NSN: 4910-01-554-7296

WEIGHT: 140 LBS.

LENGTH WITHOUT ADAPTER: 89 IN

CAPACITY: 65,000 LBS (Retracted)

CAPACITY EXTENDED UNKNOWN

END ITEM: MTV



a*



b

ADAPTERS

(Supplied with Tow Bar)

- a. *Clevis, Rod End 1 inch 5340-01-023-9801
- b. Clevis, Rod End $\frac{3}{4}$ inch 5340-01-022-4686

U.S MARINE CORPS LIGHT DUTY TOW BAR

The US Marine LIGHT Tow Bar is designed to be used in the retracted (collapsed) position only using it in the extended position may decrease towing capacity and may cause damage to the tow bar and towed vehicle.

NSN: 4910-01-365-9304

WEIGHT: 140 LBS.

LENGTH WITHOUT ADAPTER: 89 IN

CAPACITY: 39,000 LBS (Retracted)

CAPACITY EXTENDED UNKNOWN

END ITEM:

This Tow Bar has been discontinued for use by the U.S. Army and replaced with the 4910-01-554-7296 Medium Tow Bar.



ADAPTERS

(Supplied with Tow Bar)

Clevis, Rod End $\frac{3}{4}$ inch 5340-01-022-4686

Tow Bar Pin's and safety clips

The following is pin and safety clip data for replacing lost pins or safety clips

| Adapter NSN | Pin NSN | Part Number | DIA | Klick pin NSN | Part Number | Tow Bar |
|------------------|-----------------------------------|-------------|----------|------------------|-------------|--------------------------------------|
| 5340-01-022-4686 | 5315-00-624-0543 | 7551077 | 3/4in | 5315-01-131-0145 | 7551076 | 4910-01-554-7296 or 4910-01-365-9304 |
| 5340-01-023-9801 | 5325-00-624-0528 | 7551074 | 1 in | 5315-01-131-0145 | 7551076 | 4910-01-554-7296 or 4910-01-365-9304 |
| 5340-01-267-2908 | 5315-00-539-9174 | 10929861 | 1.468 in | 5315-00-350-4326 | 52113744 | 4910-01-267-2912 |
| 2540-00-863-3153 | Not available at time of printing | | 1 in | | | 4910-01-267-2912 |
| Tow bar Lunette | 5315-01-441-2462 | 11580770 | 2 in | 5315-01-439-4753 | 11580766 | 2540-01-434-8595 |
| 5340-01-267-2908 | 5315-01-440-1402 | 11580771 | 1.468 in | 5315-01-439-4165 | 11580765 | 2540-01-434-8595 |
| 2540-01-500-5325 | 5315-01-500-5324 | 3390992 | 1.468 in | 5315-01-490-7325 | 3406240 | 2540-01-496-8356 or 2540-01-558-3533 |
| 2530-01-520-6538 | 5315-01-520-6540 | 3379666 | 1 in | 5315-01-215-7505 | 1360840 | 2540-01-496-8356 or 2540-01-558-3533 |
| 2530-01-520-6537 | 5315-01-520-6541 | 3379668 | 3/4 in | 5315-01-215-7505 | 1360840 | 2540-01-496-8356 or 2540-01-558-3533 |
| 2540-01-558-4053 | 5315-01-558-4481 | 3709963 | 1.468 in | 5315-01-490-7325 | 3406240 | 2540-01-591-5914 or 2540-01-558-3533 |
| 5340-01-051-3609 | Not available at time of printing | | 1.468 in | 5315-00-350-4326 | 52113744 | 2540-00-936-7801 or 2540-01-517-9227 |
| Tow bar Leg | Not available at time of printing | | 1 in | | | 2540-00-936-7801 or 2540-01-517-9227 |
| 5340-01-046-4770 | 5315-00-624-0543 | 7551077 | 3/4in | 5315-01-131-0145 | 7551076 | 2540-00-936-7801 |
| 5340-01-046-4770 | 5325-00-624-0528 | 7551074 | 1 in | 5315-01-131-0145 | 7551076 | 2540-00-936-7801 |

Safety Chains

The following safety chains are good for all weight class vehicles.

| NSN | Part Number | Size/length |
|------------------|-------------|--------------|
| 3940-01-270-3389 | 1482010 | 5/8 - 16ft |
| 4010-01-558-4681 | 3709972 | 5/8 - 17ft |
| 4010-01-520-7142 | 3440352 | 5/8 - 14.5ft |
| | | |