



Fitting Instructions

TOWBAR F105

For **2.W.D FORD RANGER**
and **MAZDA B2500** (May 1999)

MATERIALS

A	1	Cross Bar with European facing to 94/20/EC A50-1
B	2	Side Plates
C	2	Captive Straps
D	1	RHS Bumper Bracket
E	1	Fog Light Bracket
F	1	LHS Bumper Bracket
H	1	LHS Vertical Bracket
J	1	RHS Vertical Bracket
K	2	Fog Light Spacing strap
L	4	M12x1.5x35 Bolts and 4 off Disc Spring Washers (Note: 1.5 Pitch Bolts used for fixing to chassis rail only)
M	2	M12x1.5x35 Bolts and 2 off Disc Spring Washers (Note: 1.5 Pitch Bolts used for fixing to chassis rail only)
N	4	M12x1.75x45 Bolts, 8 off Washers (OD 25mm) and Nyloc Nuts
P	8	M12x1.75x45 Bolts, Washers (OD 25mm) and Nyloc Nuts
Q	2	M12x1.5x35 Bolts and 2 off Disc Spring Washers (Note: 1.5 Pitch Bolts used for fixing to chassis rail only)
R	2	M8x1.25x20 Bolts, Nuts, Washers and Lock Washers
S	2	M6x1.00x25 Bolts, Washers, Spring Washers, Nuts
T	1	10mm Coupling Packer
U	2	Bushes 12mm Long, 13mm OD
V	1	M10x1.5x25mm Bolt, Flat Washer (20mm OD) and Nyloc Nuts
CB	2	M16 x 50mm Coupling Bolts, Nuts, Lock Washers

FITTING: to a 2.W.D. model

Before starting, check materials list to ensure that all parts are present.

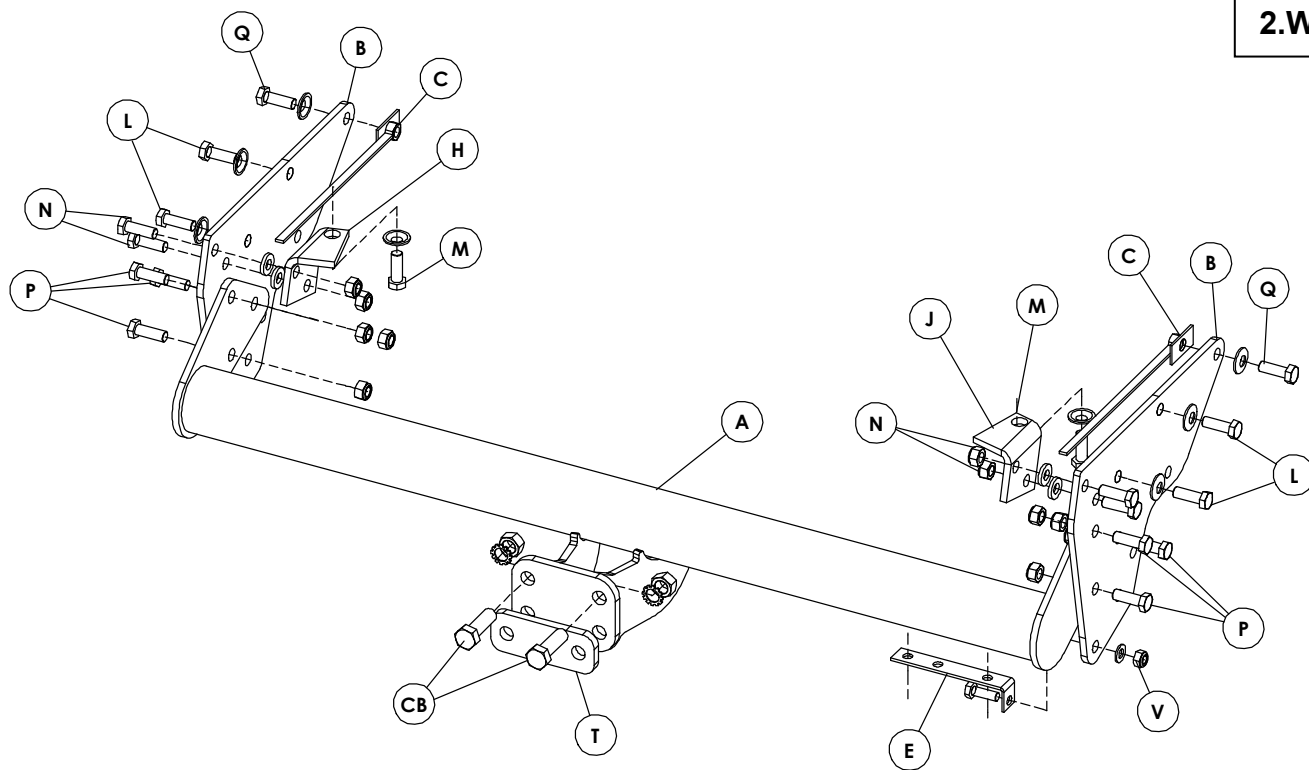
1. Lower spare wheel using the supplied wheel brace. (Often located behind the rear seats.)
2. Disconnect the rear fog lamp. Remove and discard the mounting bracket.
3. Offer up Side Plates (**B**) to the outer facing edge of the chassis rail and loosely attach using disc spring washers and Bolts (**L**).
Note: If forward holes (**Q**) are present in the chassis rail, slide Captive Straps (**C**) through the chassis rail and fix using Bolts (**Q**). However if holes are not already present in the chassis rail either drill through the side of the chassis rail using Side Plates (**B**) as a guide and fix as above or contact Witter Towbars for further advice. (**Note:** Bend Captive Strap (**C**) to prevent vibration noise).
4. Remove existing bolts in the chassis at (**M**). Align brackets (**H** & **J**) and loosely attach using Bolts (**N**). Ensure washers (OD 25mm) are sandwiched between Brackets (**H** & **J**) and Sideplates (**B**). Also attach brackets (**H** & **J**) to the vertical mountings using Bolts and disc spring washers (**M**).
5. Place Crossbar (**A**) between side plates (**B**), and attach in its **upper** most position using bolts (**P**).
6. Fix the Fog Light to bracket (**E**) using the original bolts, and fix Bracket (**E**) to Side Plate (**B**) using bolt (**V**). **Note:** Ensure Fog Lamp is visible when viewed from behind.
7. Raise the spare wheel (may deflect forwards slightly) and fully tighten every bolt to the recommended torque.

Note: This towbar must be used with either a Witter Towball (part number Z11) or Class A50-1 or A50-X towball dimensionally conforming to A50-1 with a 'D' and 'S' value greater than or equal to that of the towbar.

Please refer to the vehicle specification for the trailer weight and nose limits, which **must be observed**.

Recommended torque settings: M8 - 27Nm, M10 - 53 Nm, M12 - 95 Nm, M14 - 150 Nm, M16 - 214 Nm

2.W.D





Fitting Instructions

TOWBAR F105
For **4.W.D. FORD RANGER**
and **MAZDA B2500** (May 1999)

FITTING: to a 4.W.D. model

Before starting, check materials list to ensure that all parts are present.

1. Lower spare wheel using the supplied wheel brace. (Often located behind the rear seats.)
2. Disconnect the rear fog lamp from the bumper. Temporarily remove the rear under run bar and remove the 2 pressed under run mounting brackets from the vehicle chassis. (Hand under-run mounting brackets to the customer)
3. Offer up Side Plates (**B**) to the outer facing edge of the chassis rail and loosely attach using disc spring washers and Bolts (**L**).
Note: If forward holes (**Q**) are present in the chassis rail, slide Captive Straps (**C**) through the chassis rail and fix using Bolts (**Q**). However if holes **are not** already present in the chassis rail, either drill through the side of the chassis rail using Side Plates (**B**) as a guide and fix as above or contact Witter Towbars for further advice. (Note: Bend Captive Strap (**C**) to prevent vibration noise).
4. Remove existing bolts in the chassis at (**M**). Align brackets (**H&J**) and loosely attach using Bolts (**N**). Ensure washers (OD 25mm) are sandwiched between the Brackets (**H&J**) and Sideplates (**B**). Also attach brackets (**H&J**) to the vertical mountings using Bolts and disc spring washers (**M**).
5. Place Crossbar (**A**) between side plates (**B**), and attach in its **lowest** position, along with Bumper Brackets (**F & D**) using Bolts (**P**). Note: See additional diagram below to determine the position of the bumper support brackets (**F&D**) when fitting to an XLT/Thunder model (Circular chrome under-run bar) or standard model (rectangular under-run bar).
6. Refit the under run bar to the original fixings and Bumper Brackets (**D & F**) using bolts (**R**).
7. For the XLT/Thunder model, re-attach the Fog light to the Spacing Straps (**K**) using the original bolts and then connect the spacing straps to the under run bar using bolts (**S**) and bushes (**U**). For the non-XLT/Thunder model fix in its original position using the original mounting bolts. Note: Ensure Fog Lamp is visible when viewed from behind.
8. Raise the spare wheel (may deflect forwards slightly) and fully tighten every bolt to the recommended torque.

Note: This towbar must be used with either a Witter Towball (part number Z11) or Class A50-1 or A50-X towball dimensionally conforming to A50-1 with a 'D' and 'S' value greater than or equal to that of the towbar.

Please refer to the vehicle specification for the trailer weight and nose limits, which **must be observed**.

Recommended torque settings: M8 - 27Nm, M10 - 53 Nm, M12 - 95 Nm, M14 - 150 Nm, M16 - 214 Nm

4.W.D

