

TECHNICAL SPECIFICATION **EKEBOL TS-302 HEAVY DUTY RECOVERY UNDERLIFT**

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1. GENERAL SPECIFICATION - STANDARD

- a. The recovery unit is hydraulically operated.
- b. The unit has one underlift towing boom with integral folding capability, and a main boom with built in recovery boom.
- c. The unit has two double-acting telescopic, hard-chromed lifting cylinders.
- d. The unit has two hydraulic winches.
- e. The whole unit is operated from controls situated at the rear left hand side.
- f. Maximum towed load: 80 tonnes.

2. HYDRAULIC SYSTEM

- a. Hydraulic tank volume, approximately 200 litres, with suction strainer.
- b. Two hydraulic pumps driven from the gearbox PTO.
- c. Two independent hydraulic circuits.
- d. Hydraulic high-pressure hoses in accordance with SAE 100 R2T.
- e. A return flow oil filter is provided. The filter is of the low-pressure type and has a replaceable cartridge.
- f. Directional control valves for heavy duty, mobile applications are used.
- g. The control levers are spring-loaded, returning to neutral.
- h. Pilot operated safety valves are mounted on the lifting cylinders, recovery boom extension, tilt and anchor legs. The valves have overload protection.

3. WINCHES

- a. Two hydraulic worm-drive APE winches are mounted on the main boom.
- b. Maximum pulling capacity on single line: 13.6 tonnes (30,000 lbs) each.
- c. The winches operate fully independent of each other.
- d. The winches have pneumatically operated dog clutches to allow free spooling of rope.
- e. Wire ropes: 18 mm dia. 6/36 IWRC grade 1770 construction, 56 m long with swaged eye and swivelling safety latch-lok hooks. Breaking strength of wire rope: 20.4 tonnes.
- f. The winches have spring-loaded, roller-type wire rope tensioners.
- g. The drum flanges are provided with rope guards.

4. UNDERLIFT TOWING BOOM

- a. The underlift towing boom is built from high tensile steel and is supported by four strong bronze bearings.
- b. Maximum lifting height on crossbar: approximately 4.0 metres.
- c. Maximum lifting capacity on the underlift: 14 tonnes (retracted); 10 tonnes on first extension; 6 tonnes on second extension.
- d. The underlift towing boom is hydraulically operated, folds vertical for storage (with mechanical lock) and has a two stage extension arm.
- e. Length to forks: arm retracted 1270 mm; extended 2970 mm.
- f. The extension arm slides on nylon pads to minimize wear.
- g. The underlift towing boom has hydraulic tilt function: 15 deg. above and 10 deg. below horizontal.
- h. Pivoting, square lifting T-bar attached to boom end.

5. MAIN BOOM & RECOVERY BOOM

- a. The main boom and recovery boom are built from high tensile steel.
- b. The recovery boom is built into the main boom.
- c. The recovery boom reach is 3.3 m.
- d. Maximum lifting height: approximately 6.0 metres.
- e. Maximum rated capacity: retracted - 20 tonnes; extended - 8 tonnes.
- f. The main boom and recovery boom are hydraulically operated
- g. The main boom is mechanically locked in the vertical position when travelling so there is no load on the hydraulic system when towing a vehicle.
- h. The recovery boom slides on nylon pads to minimize wear.
- i. Twin swivelling, self-aligning fairleads at the end of the recovery boom.

6. LIFTING AND TOWING GEAR

- a. One pair of sliding low fork holders.
- b. One pair of sliding high fork holders (required for optional semi-trailer attachment).
- c. Seven pairs of forks for different applications.
- d. Two fork extensions, 120 mm.
- e. 3 pairs of spring pad fork inserts.
- f. Two chain lift brackets complete with two 13 mm Grade 80 chains with grab-hooks.
- g. Removable adaptor for towing of trailers, complete with multi-purpose pin, to suit different coupling sizes.
- h. Two 10 mm Grade 80 chains, 5 m long for vehicle tie-down.
- i. Towing 5th wheel adaptor coupling for semitrailers. Will accept 50 mm kingpins.
- j. One stiff-bar, 2300mm long (20 tonne rated)

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7. SUBFRAME

- a. The unit is mounted on a strong sub-frame to minimize stresses in the truck chassis.
- b. Two independently operated hydraulic anchor legs are provided at the rear. The anchor legs have wide (750mm), toothed spades for maximum holding power.
- c. Two flat ground support plates for the anchor legs.
- d. Two 4 m long safety chains with Latch-Lok hooks. Stored in pockets at the rear of the sub-frame.
- e. Airline connections for towed vehicle. (Truck must be fitted with trailer brake system.)

8. ELECTRIC'S

- a. Voltage same as cab-chassis.
- b. Stop, tail, turning signal and reversing lights are recessed into the rear of the optional body (if fitted).
- c. Stop, tail and turning signal lights are fitted to optional light-rack (if fitted).
- d. All lights are LED type.
- e. Two rotating amber lights mounted to the light-rack (if fitted).
- f. Two adjustable working lights mounted at the rear of the unit.
- g. All extra lights are separately fused.

9. PAINTING

- a. The unit is sandblasted and prime coated, ready for painting.

NOTES

- a. The rated capacities are for the recovery unit only, NOT VEHICLE CAPABILITY.**
- b. The ratings are in accordance with Australian practice.
- c. Tow adaptors are for recovery/emergency towing only – not to be used for continuous highway towing.**
- d. Suitable for installation on most 3 or 4-axle chassis with a GVM of 20-26 tonnes and wheelbase between 5.6 and 7.0 metres.
- e. Space required: Rear of cab to centre of tandem: minimum 3.4 metres.
- f. Ekebol Pty Ltd is continually striving to improve and update our product range. We reserve the right to change materials and specification without notice. Specifications are correct at the time of printing but may change without notice.