

## LIGHT SUPERSTOCKS

### A. Chassis

It shall consist of the following:

1. The stock engine block or OEM engine block that will operate with the stock crankshaft for that model without any alterations for chassis mounting.
2. Engine block must remain in original location as specified by manufacturer.
3. All engines must be secured and held rigid to OEM chassis. Engine cannot move independent of rear end/transmission housing.
4. The stock transmission housing or manufacturer's replacement and the stock final drive housing or manufacturer's replacement. Planetaries are considered part of final drive and are not removable. Machining OEM components is allowed. Welding of cast iron is not allowed. Welding of wheel-hub to drive-axle only on the outside of the wheel.
5. The OEM engine block cannot be modified externally, except for normal repair or for mounting of fuel injection equipment.
6. Internal webbing and water jacket must remain intact with provisions to re-bore engine block.
7. A deck plate between the bottom of the cylinder head and the top of the engine block is allowed. The maximum distance between the centerline of the crankshaft and the top of the engine block including deckplate and gasket-material is 410 mm.
8. Any alterations to the chassis shell must have the written approval of the ETPC Tech and Safety Board and the national Tech and Safety Board, before the tractor in question will be considered legal.
9. The chassis and frame must remain stock from the rear of the engine block to the rear of the tractor.
10. The only vehicles that are considered legal in the Light Superstock class are those that are available as farm tractors with front wheel steering.
11. The clutch housing, transmission case, rear end housing and axle housing must be OEM. Machining OEM components is allowed. Welding of cast iron is not allowed. Non component Light Superstocks allowed to use a steel clutch protection/housing under the following criteria:  
Replacement steel clutch protection/housing must:
  - Be constructed according to ETPC rules in chapter 2.10 point B 1-5.
  - Have external shape as the OEM housing.
  - Have the same length as the OEM housing.
  - Use OEM flange and connecting bolts.
12. One piece engine main cap bearings allowed. One piece main cap not considered a girdle.
13. The use of a spacer between engine block and clutch housing is allowed with a maximum additional thickness of 35 mm. An aluminium spacer-plate cannot be part of the clutch protection.
14. The ETPC will allow component tractors in the Light Superstock class under the following criteria:
  - a. Must install a one-piece frame extending from front of tractor to rear axle-housing with an ETPC approved bellhousing (chapter 2 point D) to replace the original clutchhousing. Must also install non cast-iron transmission and rear end to replace the original equipment transmission and rear end/final drive housing. No cast iron type transmission or rear end/final drive housing components allowed.
  - b. Drawbar and roll cage must be part of the frame structure.
  - c. Engine block of given brand must remain consistent with that brand sheet metal.
  - d. Engine location of component Light Superstocks: centerline of the crankshaft may be below the centerline of rear wheels but must be parallel to the ground +/- 2 degrees. From centerline of rear wheels to center height of front of crankshaft max. drop of 75 mm. Frame must be parallel to the ground +/- 2 degrees. This equals approximately 100 mm of fall from centerline of rear wheels to the 2900 mm wheelbase point. This to be measured with tyres, high and weight in ready-to-pull position.
  - e. All engines in component Light Superstock tractors to be mounted no farther forward than 1524 mm (60 inches) measured from the centerline of the rear axle to rear of the engine block.
  - f. Crankshaft centerline has to be between top and bottom main rail of frame. Bottom of main rail may be no more than 150 mm below centerline of crankshaft from rear of engine to front axle.
  - g. All tube ladder type frames must be covered on the outside with steel or aluminium 2 mm thick and run in the same plane as the crankshaft.
  - h. Appearance to remain stock of given brand and model.
  - i. Driveline shielding must conform to the same rules as Modified tractors.

- j. All component tractors can run a maximum of 2900 mm wheel base, with a maximum overall length of 4000 mm from center of rear wheel to forward-most point.
- k. The constructions of component tractors must be pre-approved by national tech inspectors. All dimensions must be measured and, together with pictures, be on a file and signed before the vehicle is allowed to compete. This file has to stay with the tractor and it must be shown upon Tech Inspectors request.

## **B. Frame/sheet metal**

1. Tractor must have hood and grill in place as intended by the manufacturer.
2. Sheetmetal can be upgraded to present manufacturer by approval of ETPC Tech and Safety Board and national Tech and Safety Board.
3. Sheet metal to be stock length hand in stock location.
4. Tractor must retain stock appearance.
5. The distance from the center of the rear axle to that part of the hood that is farthest forward must be the same length as that model of the upgraded sheetmetal.
6. Wheelbase rule will apply according to the original chassis, not to the model of the upgraded sheetmetal.
7. Maximum wheelbase is 2900 mm unless originally produced with longer wheelbase, in which case the stock length must remain. Maximum length is 4000 mm from center of rear wheel to forward most portion including weights and weight racks.
8. Light Superstocks chassis rule A: 1-8 will apply according to the original chassis, not to the model of the upgraded sheet metal.

## **C. Frame options**

1. Tractor must have either:
  - a. Safety tie bars made out of steel mounted to rear axle housing with at least four (4) axle housing bolts and extending forward of flywheel area and fastened to side of engine block or main frame with at least three (3) 14 mm steel bolts grade 8.8 (See illustration 4-1).
  - or
  - b. A one piece frame extending from front of tractor to rear axle housing mounting bolts.
  - or
  - c. A divisible frame under the following conditions:
    - The steel split-frame construction must extend from front of tractor to rear axle housing mounting bolts.
    - The two pieces have to fit in one another (sliding in construction) in the area where the tractor can be split (clutch area).
    - The two pieces of the frame must be made of tubes or u-shaped steel with a thickness of at least 3 mm.
    - If the frame is made of u-shaped steel it must have a u-shaped connection bar inside min. 500 mm length (250 mm in the rear part and 250 mm in the front part of the u-shaped split frame).
    - If the frame is made out of tubes it must have inner tubes min. 500 mm length. 250 mm in the rear part and 250 mm in the front part of the tube-frame).
    - Rear part of the frame has to be mounted to rear-axle housing with at least four (4) axle-housing bolts and extending forward of flywheel area minimal M16 8.8 minimal M14 8.8 and fastened to side of engine block or motor-plate with at least three (3) M14 mm bolts min. Grade 8.8.
    - Two parts of frame must be locked together with at least two (2) fasteners of 8 mm steel.
    - Two piece frame must be of sufficient strength to support the weight of tractor with the bolts used to split the tractor removed.
2. Tie bars or frame must be of sufficient strength to support the weight of tractor with the bolts used to split the tractor removed.

## **D. Engines**

1. Light Superstock class limited to:
  - Engines that use methanol as fuel:
    - o 7600 cc (466 cubic inch), max. 2 valves per cylinder
    - o 7000 cc (427 cubic inch), max 4 valves per cylinder
  - Engines that use diesel as fuel: 8364 cc (510 cubic inch)

2. All turbo charged engines must have a cable totally surrounding the engine block and head. See chapter 2, par. I-13 for details.
3. Light superstocks are limited to 1 (one) pressure stage with a maximum of 1 (one) turbo charger. The maximum diameter of the inlet side of the turbohousing is 107 mm. The maximum diameter of the inlet wheel of the turbocharger (bottom diameter) is 154 mm.
4. Engine head must be OEM agricultural type for that brand of engine. (OEM boltpattern may not be modified).
- ~~5. Only two valves per cylinder allowed if particular tractor model is equipped with a multi-valve (more than two) head engine, it is allowed to use this OEM engine with the OEM head.~~
6. An intercooler is allowed.
7. No overhead cams allowed.
8. Conversion from 4-stroke into 2-stroke is prohibited.
9. Downsizing is allowed.
10. Electronic Fuel Injection (EFI) is not allowed.
11. Maximum 1 (one) spark plug per cylinder.

#### **E. Clutches**

1. Only mechanically activated clutches are permitted. Hydraulic engagement is allowed.
2. Clutches and clutch protections: see chapter 2, par. D of this book.

#### **F. Shatterblankets**

1. De Shatterblankets must be on the inside of the tiebar or one piece frame and the tiebar must be fastened forward of the rear of the engine block. However, in some occasions there is no space for the blanket inside othe tiebar or the onepiece frame, in that case as written approval from ETPC or affiliated organisation must available to Tech inspectors.

#### **G. Firewall/deflection shield**

1. Steel deflection sheet between driver and engine from top of the hood to top of torque tubes or transmission or clutch housing from side shield to side shield, minimum 2 mm thick. This also serves as a flash fire shield.

#### **H. Starting Chemicals**

1. All ether bottles (or starting aids) must be placed outside of engine compartment.

#### **I. Onboard fire control systems**

1. Light Super Stock tractors that require tools for removal of side shields must be equipped with an onboard firecontrol system. Onboard system nozzles must be in engine compartment.
2. Light Super Stock tractors utilizing onboard fire control extinguishing systems must place one nozzle on each side of engine, inside the engine compartment. Not ot be attached to the sheet metal.

#### **J. Legality**

1. If the ETPC or national organisation doubts the legality of any entry, or upon protest by another contestant in that class, contestant in question must verify that 150 units of the tractor in question have been manufactured (notarized statement from the manufacturer), furnish parts numbers, and prove to the Boards satisfaction that the tractor is legal.