



OPERATOR MANUAL & PARTS LIST



MACHINE MODELS

BENDI 300G

BENDI 300D

BENDI 300E

BENDI 450G

BENDI 450D

BENDI 450E

SERIAL Numbers After B151040



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We, **Tufftruk Ltd, Sheen, nr. Buxton, Derbyshire, SK17 0EU, GB**, hereby certify that if the product described within this certificate is bought from an authorised Tufftruk dealer within the EEC, it conforms to the following EEC directives: 2006/42/CE (This directive replaces directive 98/37/EC), Electromagnetic Compatibility Directive 2004/108/CE (as amended by 89/336/EEC, 92/31/EEC & 93/68 EEC).

The Waste Electrical and Electronic Equipment (WEEE) 2002/96/CE, the low voltage directive 2006/95/CE, BS EN ISO 12100-1:2003 Safety of machinery and associated harmonised standards, where applicable.

Noise emissions conform to directive 2000/14/EC Annex VI, for machines under article 12 the notified body is **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

Noise Technical Files are held at the Tufftruk Head Office address stated above.

DECLARATION OF CONFORMITY

EC DECLARATION OF CONFORMITY

We

TUFFTRUK Ltd

The Croft, Sheen, Buxton, Derbyshire, SK170EU

**Declare that the following equipment conforms to the Directive: -
2000/14/EC (as amended) of the European Parliament and of the council on the
approximation of the laws of the Member States relating to the *Noise Emission in
the Environment by Equipment for Use Outdoors.***

Equipment Category: Pedestrian Power Barrow

Product Name/Model: TRUXTA

Type/Serial No: B300D & B450D & R300D

The technical documentation is held by: TUFFTRUK Ltd Address above

**The conformity assessment procedure followed was in according with annex VI
of the Directive.**

Notified Body: AV Technology Ltd SK9 3RW

Measured Sound Power Level: 97 dB (LWA)

Guaranteed Sound Power Level: 100 dB (LWA)

A copy of this certificate has been submitted to the European Commission and to
EU Member State, *United Kingdom*

Place of Declaration: TUFFTRUK Ltd SK17 0EU

Date: 29/09/2014

Signed by: Ronald Blackhurst

Position in Company: Managing Director

Name and address of manufacturer or Authorised representative: Tufftruk Ltd SK17 0EU

EC DECLARATION OF CONFORMITY

We

TUFFTRUK Ltd

The Croft, Sheen, Buxton, Derbyshire, SK17 0EU

Declare that the following equipment conforms to the Directive: 2000/14/EC (as amended) of the European Parliament and of the council on the approximation of the laws of the Member States relating to the *Noise Emission in the Environment by Equipment for Use Outdoors*.

Equipment Category: Pedestrian Power Barrow

Product Name/Model: TRUXTA

Type/Serial No: B300G & R300G

The technical documentation is held by: TUFFTRUK Ltd Address above

The conformity assessment procedure followed was in accordance with annex VI of the Directive.

Notified Body: AV Technology Ltd SK9 3RW

Measured Sound Power Level: 91 dB (LWA)

Guaranteed Sound Power Level: 94 dB (LWA)

A copy of this certificate has been submitted to the European Commission and to EU Member State, *United Kingdom*

Place of Declaration: TUFFTRUK Ltd SK17 0EU

Date: 29/09/2014

Signed by: Ronald Blackhurst

Position in Company: *Managing Director*

Name and address of manufacturer or Authorised representative: Tufftruk Ltd SK17 0EU

DECLARATION OF CONFORMITY

EC DECLARATION OF CONFORMITY

We

TUFFTRUK Ltd

The Croft, Sheen, Buxton, Derbyshire, SK170EU

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approximation of the laws of the Member States relating to the *Noise Emission in
the Environment by Equipment for Use Outdoors.*

Equipment Category: Pedestrian Power Barrow

Product Name/Model: TRUXTA

Type/Serial No: B450G

The technical documentation is held by: TUFFTRUK Ltd Address above

The conformity assessment procedure followed was in according with annex VI
of the Directive.

Notified Body: AV Technology Ltd SK9 3RW

Measured Sound Power Level: 93 dB (LWA)

Guaranteed Sound Power Level: 96 dB (LWA)

A copy of this certificate has been submitted to the European Commission and to
EU Member State, *United Kingdom*

Place of Declaration: TUFFTRUK Ltd SK17 0EU

Date: 29/09/2014

Signed by: Ronald Blackhurst

Position in Company: *Managing Director*

Name and address of manufacturer or Authorised representative: Tufftruk Ltd SK17 0EU

EC DECLARATION OF CONFORMITY

We

TUFFTRUK Ltd

The Croft, Sheen, Buxton, Derbyshire, SK170EU

Declare that the following equipment
conforms to the Directive: -
2000/14/EC (as amended)

of the European Parliament and of the council on the approximation of the laws of the Member States relating to the *Noise Emission in the Environment by Equipment for Use Outdoors*.

Equipment Category: Pedestrian Power Barrow

Product Name/Model: TRUXTA

Type/Serial No: B300E / B450E - ELECTRIC OPTIONS

The technical documentation is held by: TUFFTRUK Ltd Address above

The conformity assessment procedure followed was in according with annex VI of the Directive.

Notified Body: AV Technology Ltd SK9 3RW

Measured Sound Power Level: 69 dB

Guaranteed Sound Power Level: 69 dB

A copy of this certificate has been submitted to the European Commission and to EU Member State, *United Kingdom*

Place of Declaration: TUFFTRUK Ltd SK17 0EU

Date: 29/09/2014

Signed by: Ronald Blackhurst

Position in Company: *Managing Director*

Name and address of manufacturer or Authorised representative: Tufftruk Ltd SK17 0EU

WARNING
CRUSH ZONE.

LIFT **DO NOT**
BYPASS-FREEWHEEL

B300-G

B450-G

UNLOCK → LOCK

UNLOCK → LOCK

450kg MAX

300kg MAX

UNLEADED SP95 ONLY

94 dB

TRUXTA
4x4

WARNING
CRUSH ZONE.

LIFT **DO NOT**
BYPASS-FREEWHEEL

B300-D

B450-D

UNLOCK → LOCK

UNLOCK → LOCK

450kg MAX

300kg MAX

DIESEL ONLY

99 dB

TRUXTA
4x4

TRUXTA BENDI - MACHINE SPECIFICATIONS

Model	Petrol B300G (Petrol B450G)	Diesel B300D (Diesel B450D)	Electric B300E (Electric B450E)
Engine/Motor/Power (kW)/hp	Honda GX 160 3.6 / 4.8 Honda GX200 4.1 / 5.5	Yanmar L48 3.5/ 4.7 Yanmar L48 3.5 / 4.7	DC Brushless Motor 1000W /24v Motor 1300W / 24v
Fuel Type	Unleaded Petrol (4 stroke)	Diesel	2 x 12v Batteries
Fuel Capacity	3.1 litres	2.5 litres	
Max Payload (kg)	300kg / 7ft ³ / 0.2m ³ (450kg / 10.6ft ³ / 0.3m ³)	300kg / 7ft ³ / 0.2m ³ (450kg / 10.6ft ³ / 0.3m ³)	300kg / 7ft ³ / 0.2m ³ (450kg / 10.6ft ³ / 0.3m ³)
Unladen Weight (kg)	170 (180)	201 (219)	224 (255)
Working Gradient	25°	25°	25°
Drive & Controls	Hydrostatic System		24v Motor Gearbox
Brake System	Fail-safe dead-man handle (International patents pending)		
Standard Fitment Tyres	Flotation with option for turf tyres		
Travel Speed Fwd/Reverse	0-4 mph forward 0-1.5 mph reverse		0-3.5 mph forward 0-1.5 mph reverse
Noise Level (db.)	< 94	< 100	< 69
Hand Arm Vibration	3.6 m/s ² 4.6 m/s ²	3.8 m/s ² 3.8 m/s ²	2.5 m/s ² 2.5 m/s ²

All dimensions unless otherwise stated are in mm.

We reserve the right to change specification without prior notice.

A 12 month warranty is applicable on all TRUXTA machines.

GENERAL SAFETY

For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information.

It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely.

If you are unsure about the safe and correct use of the TRUXTA, consult your supervisor or TRUXTA

- This equipment is heavy and must not be lifted single-handedly, **GET HELP** and use suitable lifting equipment.
- Cordon off the work area and keep members of the public and unauthorized personnel at a safe distance.
- Personal Protective Equipment (PPE) must be worn by the operator when ever this equipment is being used (see Health & Safety).
- Make sure you know how to safely switch this machine **OFF** before you switch it **ON** in case you get into difficulty.
- Always switch **OFF** the engine before transporting, moving it around the site or servicing it.
- During use the engine becomes very hot; allow the engine to cool before touching it. Never leave the engine running and unattended.
- Never remove or tamper with any guards fitted, they are there for your protection.
- Always check guards for condition and Security, if any is damaged or missing, **DO NOT USE THE TRUXTA** until the guard has been replaced or repaired.
- Do not operate the machine when you are ill, feeling tired, or when under the influence of alcohol or drugs.
- Do not stand the machine on end with the engine running.
- Do not use the TRUXTA to transport people.
- Do not release the brake suddenly when travelling forward at speed with a heavy load as the machine may topple forward.
- (Brake off). Close the throttle if necessary so that engine braking controls the speed.
Always ensure that when moving downwards on a hill, the machine is travelling in reverse.
- Before refuelling, switch off the engine and allow it to cool.
When refuelling, **DO NOT** smoke or allow naked flames in the area.
- Spilt fuel must be made safe immediately, by using sand. If fuel is spilt on your clothes, change them.

VIBRATION

Some vibration from the operation is transmitted through the handle to the operator's hands. **DO NOT** exceed the maximum usage times. (See Technical Data section)

PPE (Personal Protective Equipment).

Suitable PPE must be worn when using this equipment i.e. Safety Goggles, Gloves, Ear Defenders, Dust Mask and Steel Toe capped.

Footwear. Wear clothing suitable for the work you are doing. Tie back long hair and remove any jewellery which may catch in the equipment's moving parts.

Petrol And Diesel Machines.

Do not ingest fuel or inhale fuel vapours and avoid contact with your skin. Wash fuel splashes immediately. If you get fuel in your eyes, Irrigate with copious amounts of water and seek medical attention as soon as possible.

Exhaust Fumes

Do not operate the TRUXTA indoors or in a confined space, make sure the work area is adequately ventilated.

Electric

Do not attempt to charge the electric machine if cable or connectors are damaged

Do not connect or disconnect the machine with wet hands immediately replace damaged charging parts

Safe Disposal.

Instructions for the protection of the environment.

The machine contains valuable materials.

Take the discarded apparatus and accessories to the relevant recycling facilities.

OPERATING INSTRUCTIONS - PETROL AND DIESEL

PRE START UP INSPECTION

The following pre-start-up inspection must be performed before the start of each work session or after every four hours of use, whichever is first.

Please refer to the service section for detailed guidance.

If any fault is discovered, the TRUXTA must not be used until the fault is rectified.

1. Thoroughly inspect the TRUXTA for signs of damage.
2. Check components are present and secure.
3. Check fluid lines, hoses filler openings, drain plugs and any other areas for signs of leakage.
Fix any leaks before operating.
4. Check the engine oil and fuel levels and top up as necessary.
5. Check the tyre pressures and top up as necessary.
6. Check for fuel and oil leaks.

Electric models

1. Check mains lead is stored correctly and is secured to the machine.
2. Check mains lead is not damaged in any way and replace as necessary.

OPERATING THE TRUXTA BENDI

1. Start the engine by putting the throttle to the run position and turning the ignition on.
(use choke if cold)
2. Grip the dead man lever and hold it down.
3. Use the forward and reverse levers to control direction of travel and speed.
Never press both levers at once or whilst the dead man is released as this will cause unnecessary

EMPTYING THE SKIP

1. Stop the machine by releasing the Drive Lever followed by releasing the dead man Brake Lever.
2. Once the machine has become stationary, pull the Skip Release Lever and the Skip will tip forwards disposing of its contents.
3. When the Skip is empty, push back to its original position. The Skip will lock into place



CAUTION

If it is necessary to travel down a slope of more than 15° when fully laden, ensure that the machine is turned round and reverse down the slope.

OPERATING THE PETROL TRUXTA B300G / B450G

Start the engine by putting the throttle to the run position and turning the ignition on.
(use choke if cold)

Grip the dead man lever and hold it down.

Use the forward and reverse levers to control direction of travel and speed. (Never press both levers at once or whilst the dead man is released as this will cause unnecessary damage to the machine.

Release the dead man to stop.

OPERATING THE L48 ELECTRIC START DIESEL TRUXTA B300D / B450D

Start the engine by turning the ignition key on. Move throttle to desired speed

Grip the dead man lever and hold it down.

Use the forward and reverse levers to control direction of travel and speed.

Never press both levers at once or whilst the dead man is released as this will cause unnecessary damage to the machine.

TRANSMISSION BY-PASS FREEWHEEL FACILITY

This allows the Truxta to be moved without the engine running.

In the event of engine or drive belt failure it is possible to manually move the Truxta by lifting the by-pass lever and locating to the left, then depress the yellow Deadman brake lever and the Truxta will now free-wheel.

The By-pass lever is located next to the oil reservoir under the steering column.

THE BY-PASS LEVER MUST NOT BE LIFTED WITH THE ENGINE RUNNING.

SERVICE & MAINTENANCE - PETROL & DIESEL

Hydrostatic Oil

Top up if oil is below minimum level when machine is cold. If there are any signs of leakage, stop using the machine and contact your local dealer or Tufftruk ltd.

Machine Cleaning

Clean the machine after it has been used to prevent the collection of hardened debris. Hardened debris is very difficult to remove. To clean it use an old brush or hand brush with water. Never pressure wash or hose down the engine or electric motor housing. Clean only with a cloth or compressed air.

Air Filter - If it is dirty, proceed as follows:-

Foam Element - Wash the element in a solution of washing-up liquid and water. Allow the element to dry, then soak in clean engine oil and squeeze out the excess oil. If the engine smokes during start-up then too much oil has been left on the foam.

Paper Element - Tap the element on a hard surface or blow from inside using compressed air to remove any excess dust within the filter. Replace every 200 hours or if it is extremely dirty.

Transmission Drive Chains

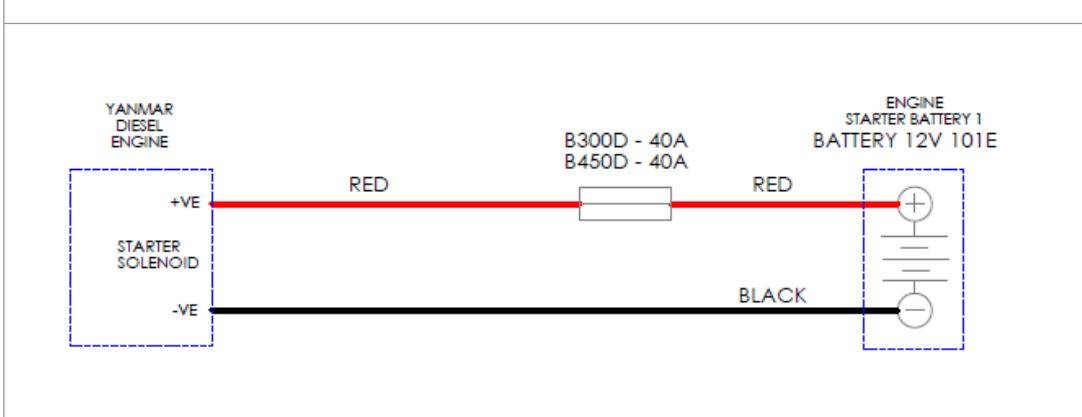
Clean and lubricate the 3 transmission drive chains once a year.

ROUTINE MAINTENANCE		Every 20 hours	Every 50 hours	Every 200 hours	
ENGINE OIL	CHANGE	✓			
AIR FILTER	CHECK CONDITION		✓		
	CLEAN / REPLACE			✓	
SPARK PLUG	CHANGE			✓	

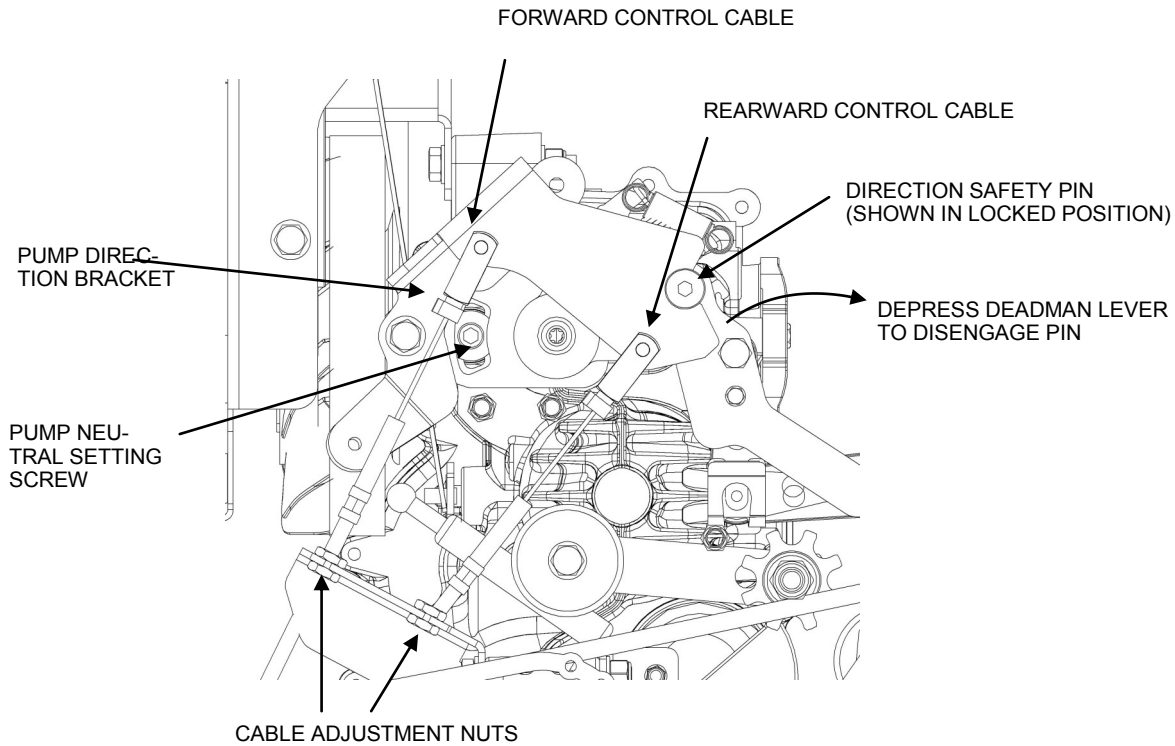
SPARK PLUG AND OIL DATA

	Engine Oil Type	Quantity (gals)	Fuel Type	Capacity (gals)	Spark Plug	Electrode Gap (mm)	Hydrostatic Transmission Oil
PETROL HONDA	S.A.E 10W30	0.17	UNLEADED	0.53	BPR5ES	0.07-0.8	20W50
YANMAR DIESEL I48	SAE 5W-30	0.18	DIESEL	0.55	N/A	N/A	20W50

POWER CIRCUIT—Diesel Electric Start



PUMP CONTROL SETTINGS & ADJUSTMENT

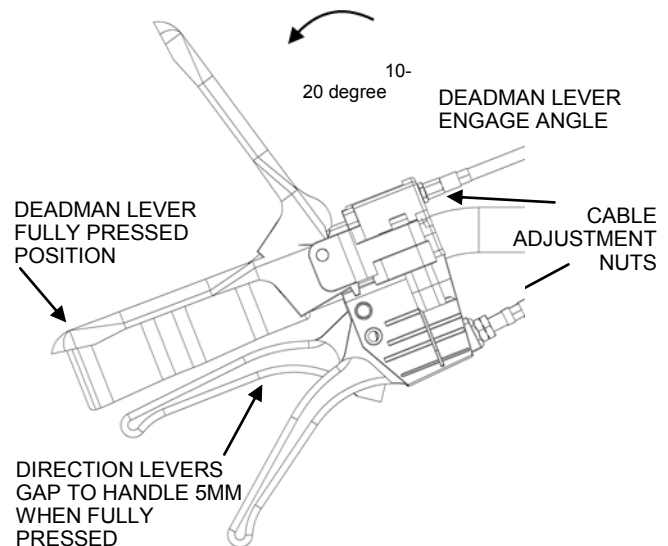


1: Adjust Deadman lever cable tension if required, see engage angle. Adjust cable adjustment nuts. With Deadman lever in fully pressed position ensure the direction safety pin is clear of control plate (see above)

2: Adjust forward/reverse direction levers cable tension if required, ensure 3mm - 5mm gap when fully pressed. Adjust cable adjustment nuts.

3: Ensure that with forward lever fully pressed the pump direction bracket turns
15 degree forward direction 75 rpm @ wheels

4: Ensure that with rearward lever fully pressed the pump direction bracket turns
5 degree rearward direction 30 rpm @ wheels



PUMP NEUTRAL SETTING

1: Adjust pump neutral setting if required if machine creeps forwards/backwards when in neutral,

- disconnect forward and rearward control cables
- fully press Deadman lever to disengage the direction safety pin
- loosen pump neutral setting screw
- adjust angle of pump control bracket by rotating forward/backward until no creep
- re tighten pump neutral setting screw when wheel rotation is 0 rpm

OPERATING INSTRUCTIONS & CHARGING - ELECTRIC TRUXTA

OPERATING THE TRUXTA

Pull out large red button. (DEADMAN KILL SWITCH)

Turn ignition key on.

Depress dead man lever (yellow) on right hand controls.

To Move Forward – squeeze right hand lever to move forward.

To Reverse – squeeze and hold left hand lever, then squeeze the right hand lever to move the machine in reverse.

STOPPING THE TRUXTA

Release the right hand lever to stop the machine

Release the dead man yellow lever to engage the parking brake

In emergencies hit the large red button (DEADMAN KILL SWITCH)

When machine is not in use, always push in the large red button.



PARKING BRAKE

The Parking Brake operates automatically when the dead man lever (yellow) is in the upright position.

The brake is on until the dead-man (yellow) lever is compressed to release it.

MOVING the TRUXTA with NO POWER

For manual brake release when the machine has no power

Push brake release lever forward and hold



CHARGING THE ELECTRIC TRUXTA


- TRUXTA has a built-in 24v charger
- Turn off ignition switch.
- Push in the large red button.
- Connect the cable provided to a mains supply 110-230 v. Charger is dual voltage.
- Check batteries are charging by observing small window on left hand side of battery box.
- The CHARGING light is normally ORANGE which changes to GREEN when the battery is fully charged.
- The charger is a Smart Charger, it can be left connected to the batteries after full charge (green light) without harming batteries. The charger uses minimum power in this stand-by mode (after battery is fully charged), maintains the batteries at full charge and extends battery life.
-

MACHINE CLEANING


Clean the machine after it has been used to prevent the collection of hardened debris. Hardened debris is very difficult to remove. To clean it use an old brush or hand brush with water. Never pressure wash or hose down the electric motor housing. Clean only with a cloth or compressed air.







TRANSMISSION DRIVE CHAINS

Clean and lubricate the 3 transmission drive chains once a year.






WARNING
CRUSH ZONE.





B300-E




110 - 230 Volts

B450-E







450kg MAX






UNLOCK ← → LOCK

300kg MAX











BRAKE MANUAL OFF



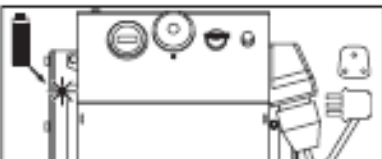
HOLD




AUTO




69 dB



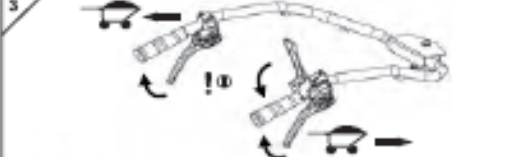
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2




3




4




5

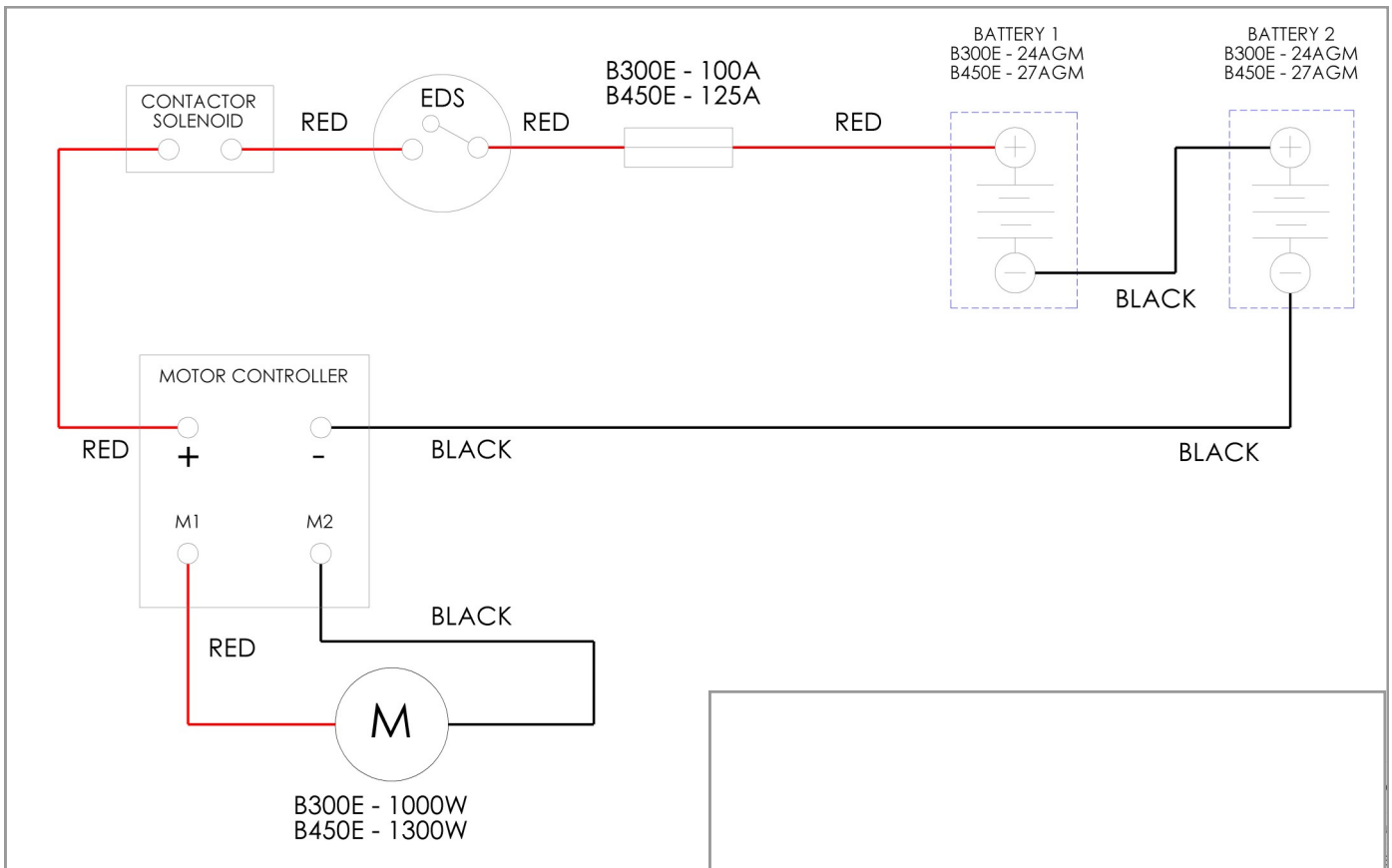
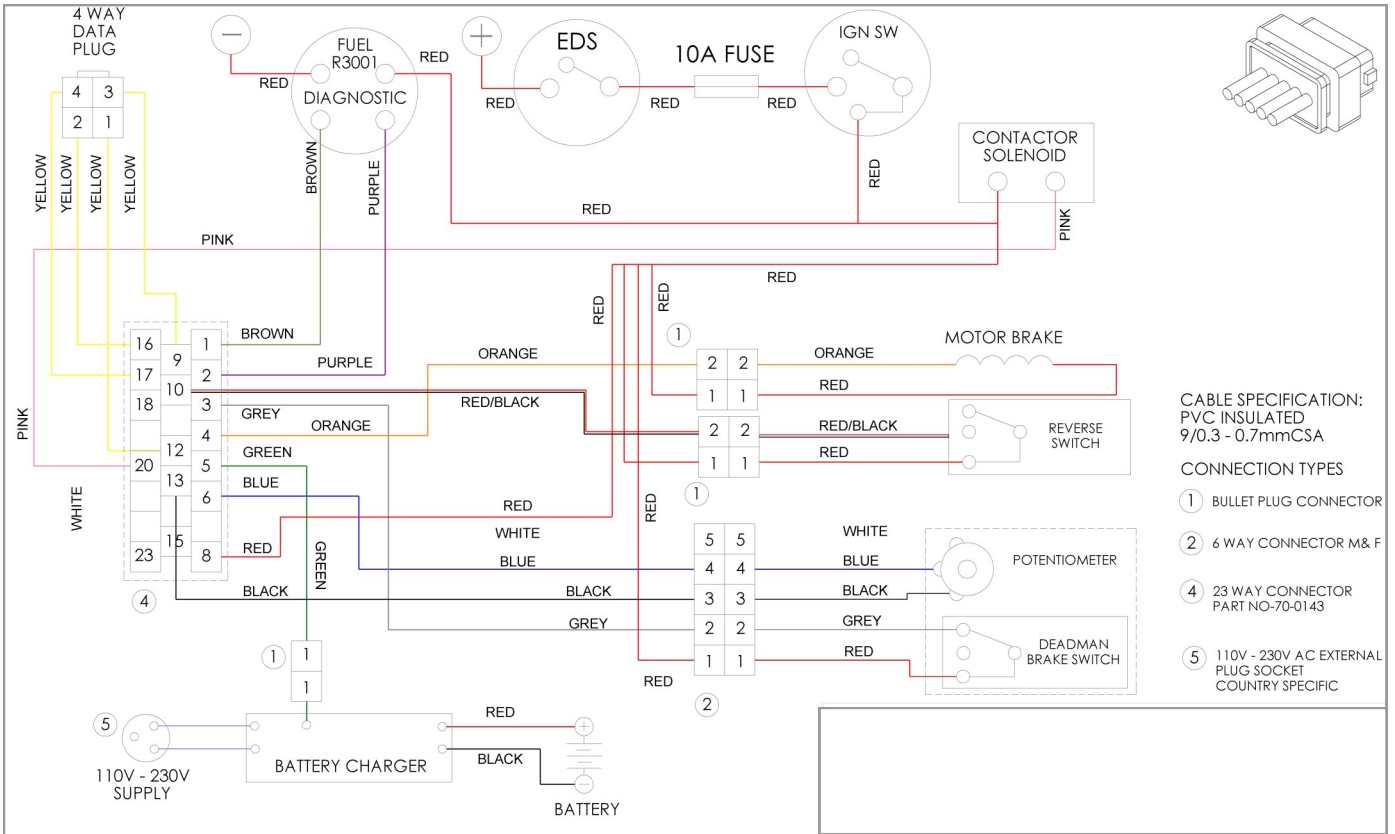


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ELECTRIC TRUXTA - WIRING DIAGRAM - DIAGNOSTICS & TROUBLESHOOTING



TRUXTA Electric Service Diagnostics

The 1229 controller detects a wide variety of faults or error conditions.

Diagnostic information can be obtained through the 3100R fuel gauge display where an error code in the format “Err ##”; the codes are listed in Table 4.

The troubleshooting chart (Table 5) describes the faults and their possible causes; the faults are listed in alphabetical order.

Whenever a fault is encountered and no wiring or vehicle fault can be found, shut off KSI and turn it back on to see if the fault clears. If it does not, shut off KSI and remove the 35-pin connector. Check the connector for corrosion or damage, clean it if necessary, and re-insert it.

Table 4 ERROR CODES ON 3100R GAUGE	
1	HW Failsafe
2	PLD Clock Fail
9	Calibration Reset
10	Main Brake Driver Overcurrent
11	Main Driver Open Drain
12	EMR Redundancy
13	EEPROM Failure
15	Main Contactor Dropped
16	Current Sensor
17	Main Contactor Welded
18	Encoder
19	PDO Timeout
20	Supervisor Comms
21	Supervisor Watchdog
22	Supervisor Pot1 Fault
23	Supervisor Pot2 Fault
24	Supervisor Pot3 Fault
25	Supervisor PotH Fault
26	Supervisor Sw1 Fault
27	Supervisor Sw2 Fault
28	Supervisor Sw3 Fault
29	Supervisor Sw4 Fault
30	Supervisor Sw5 Fault
31	Supervisor KSI Voltage Fault
32	Supervisor Motor Speed Fault
33	Supervisor Dir Check Fault
34	External Supply Fault
36	EMBrake Driver Open Drain
37	EMBrake Driver On
41	Pot1
42	Pot2
43	Pot3
50	Severe Undervoltage
52	Controller Severe Undertemp
53	Controller Severe Overtemp
54	Precharge Failed
70	Driver Shorted
71	Driver3 Fault
72	Driver3 Overcurrent
73	Driver4 Fault
74	Driver4 Overcurrent
75	Driver5 Fault
76	Driver5 Overcurrent
77	Driver6 Fault
78	Driver6 Overcurrent
79	Correlation Fault
80	HPD Sequencing
81	Parameter Change
82	NV Memory Fault
90	Motor Temp Hot Cutback
92	Motor Open
93	Controller Overcurrent
94	VBAT Too High
95	Controller Undertemp Cutback
96	Stall Detected
97	Controller Overtemp Cutback
98	Overvoltage Cutback
99	Undervoltage Cutback
101	User Fault Estop
102	User Fault Severe

Table 5 TROUBLESHOOTING CHART

PROGRAMMER LCD DISPLAY	DESCRIPTION	POSSIBLE CAUSE
Calibration Reset		1. Controller fault.
Controller Overcurrent		1. Short circuit on motor outputs.
Controller Overtemp Cutback	controller overtemperature	1. Temperature above overtemp threshold. 2. Excessive load on vehicle. 3. Electromagnetic brake not releasing.
Controller Severe Overtemp	severe controller overtemperature	1. Temperature > severe overtemp threshold.
Controller Severe Undertemp	severe controller undertemperature	1. Temperature < severe undertemp threshold.
Controller Undertemp Cutback	controller undertemperature	1. Temperature < undertemp threshold.
Correlation Fault		1. Redundant signals mapped to Correlation Check function do not match.
Current Sensor		1. Short circuit on motor outputs. 2. Controller fault.
Driver3 Fault		1. Driver 3 output shorted. 2. Driver 3 output open.
Driver4 Fault		1. Driver 4 output shorted. 2. Driver 4 output open.
Driver5 Fault		1. Driver 5 output shorted. 2. Driver 5 output open.
Driver6 Fault		1. Driver 6 output shorted. 2. Driver 6 output open.
Driver Shorted		1. Drivers disabled due to short circuit on one or more drivers.
Driver3 Overcurrent		1. Driver 3 exceeded maximum current (10A). 2. Short circuit. 3. Improperly sized load.
Driver4 Overcurrent		1. Driver 4 exceeded maximum current (10A). 2. Short circuit. 3. Improperly sized load.
Driver5 Overcurrent		1. Driver 5 exceeded maximum current (10A). 2. Short circuit. 3. Improperly sized load.
Driver6 Overcurrent		1. Driver 6 exceeded maximum current (10A). 2. Short circuit. 3. Improperly sized load.
EEPROM Failure	controller operation system unable to write to EEPROM memory	1. Incompatible memory write initiated by the CAN bus. 2. Invalid parameter adjustment by programmer during operation. 3. Inappropriate software loaded.
EMBrake Driver On	brake On fault	1. Electromagnetic brake driver shorted. 2. Electromagnetic brake coil open.
EMBrake Driver Open Drain		
EMR Redundancy		1. Emergency reverse N/O input and N/C input are not complementary.

ELECTRIC TRUXTA - DIAGNOSTICS & TROUBLESHOOTING

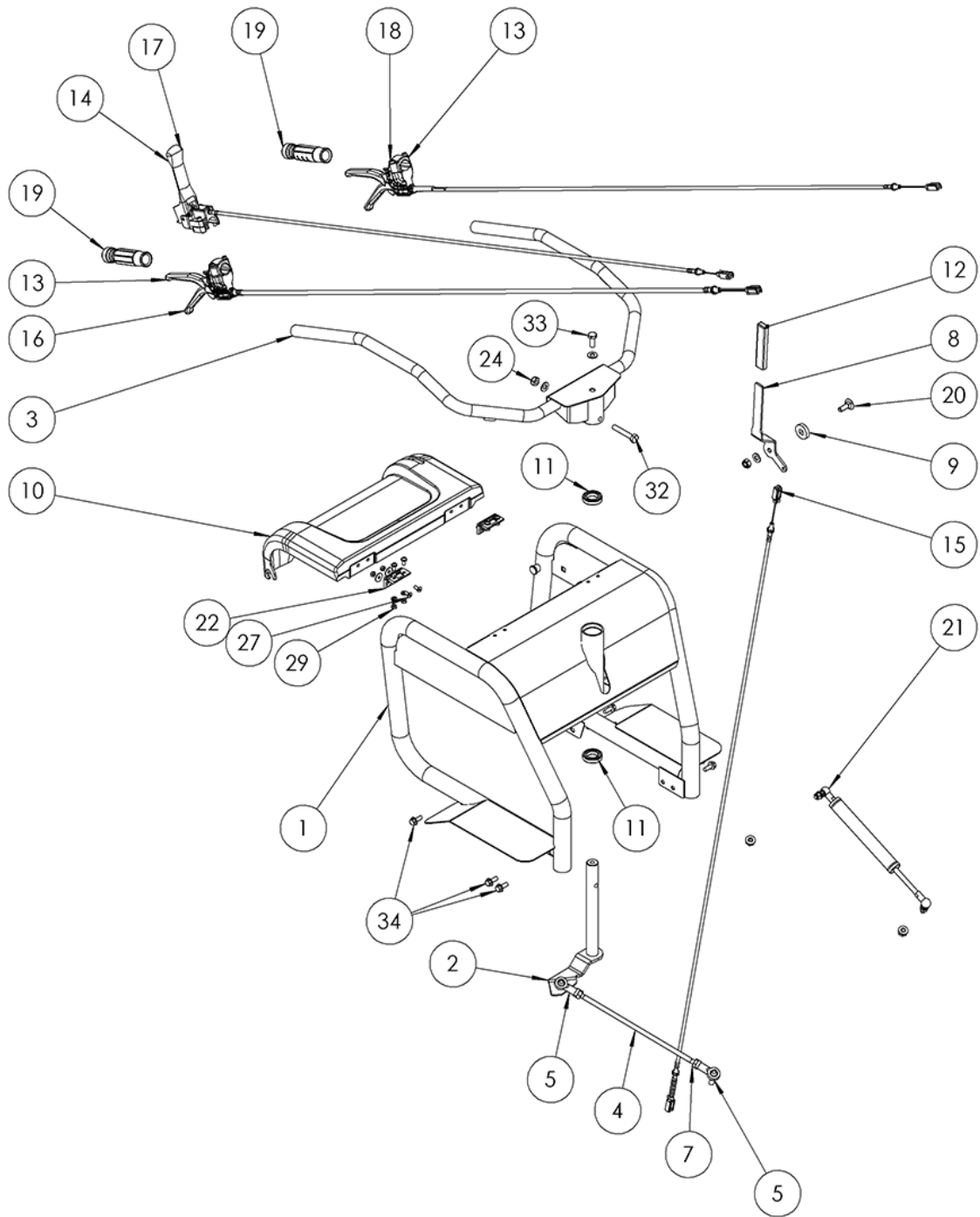
Table 5 TROUBLESHOOTING CHART, cont'd

PROGRAMMER LCD DISPLAY	DESCRIPTION	POSSIBLE CAUSE
Encoder		1. Controller unable to regulate maximum speed; check encoder signals.
External Supply Fault	external load on the supplies outside the allowed current range	1. External supply current (combined current used by the +5V and +17V supplies) is greater than the upper current threshold. 2. External supply current is below the lower current threshold.
HPD Sequencing	HPD fault present >10 seconds	1. Misadjusted throttle. 2. Broken throttle pot or throttle mechanism.
HW Failsafe	motor voltage fault (hardware failsafe)	1. Motor voltage does not correspond to throttle request. 2. Short in motor or in motor wiring.
Main Brake Driver Overcurrent		1. Short circuit or improperly sized load on Driver 1 or Driver 2.
Main Contactor Dropped		1. Main contactor failed open.
Main Contactor Welded	main contactor On fault	1. Main contactor failed closed.
Main Driver Open Drain		1. Main contactor coil not connected.
Motor Open		1. Traction motor not connected.
Motor Temp Hot Cutback	motor temperature too high	1. Motor temperature above the motor hot threshold.
IV Memory Fault		1. Controller fault; cycle KSI.
Overvoltage Cutback	battery voltage too high	1. Battery voltage > overvoltage threshold. 2. Vehicle operating with charger attached. 3. Intermittent battery connection.
Parameter Change		1. Critical setting changed; cycle KSI for change to take effect.
PDO Timeout	CAN PDO message timing fault	1. Time between CAN PDO messages received exceeded the PDO Timeout period.
PLD Clock Fail		1. Controller fault.
Pot1		1. Pot 1 input out of range.
Pot2		1. Pot 2 input out of range.
Pot3		1. Pot 3 input out of range.
Precharge Failed	precharge fault	1. Low battery voltage. 2. Short circuit on traction motor outputs.
Severe Undervoltage	battery voltage extremely low	1. Battery voltage < severe undervoltage threshold. 2. Bad connection at battery or controller.
Stall Detected		1. Encoder input not reporting speed correctly; check connections.
Supervisor Comms		1. Lost communication with supervisor micro.
Supervisor Dir Check Fault		<p style="text-align: center;">If the fault is on an external signal, check that signal first.</p> <p style="text-align: center;">If there is no problem with the external signal, the supervisor fault likely indicates an internal controller fault.</p> <p style="text-align: center;">Note: If an encoder is connected to Switch 5 but Switch 5 is configured as "encoder disabled" (Program » I/O Map » Speed Sensor » 40-Vehicle Speed » Encoder Enable = Off) it will result in a Supervisor Sw5 Fault at some speeds.</p>
Supervisor KSI Voltage Fault		
Supervisor Motor Speed Fault		
Supervisor Pot1 Fault		
Supervisor Pot2 Fault		
Supervisor Pot3 Fault		
Supervisor PotH Fault		
Supervisor Sw1 Fault		
Supervisor Sw2 Fault		
Supervisor Sw3 Fault		
Supervisor Sw4 Fault		
Supervisor Sw5 Fault		
Supervisor Watchdog		
Undervoltage Cutback	battery voltage too low	
User Fault Estop	User-programmed fault	

TOP FRAME - PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	101-00400-N	TOP FRAME WA	1	
2	101-00800-H	REAR STEERING PIVOT WA	1	
3	101-01000-I	HANDLE AND PIVOT WA	1	
4	101-00901-C	ROD STEERING	1	
5	3-5026-0	ROD END M10 RH	2	
6	8-10003-1	NUT M10 BZP	1	
7	8-10005-0	NUT M10 THIN LH	1	
8	101-99914-F	PRESSING TIP HANDLE	1	
9	102-99939-2	SPACER TIP LEVER	1	
10	101-99945-F	ENGINE COVER	1	
11	53-0160-0	BEARING BALL 42x25x9	2	
12	72-0200-0	MOULDING TIP HANDLE	1	
13	75-01500-3	CABLE ASSY FWD	2	
14	75-01700-0	CABLE ASSY DEADMAN	1	
15	75-00900-A	CABLE SKIP RELEASE (B)	1	
16	75-01900-0	CABLE ASSY FWD ELECTRIC	1	ELECTRIC OPTION
17	75-02000-0	CABLE ASSY DEADMAN ELECTRIC	1	ELECTRIC OPTION
18	75-02100-0	CABLE ASSY REV ELECTRIC	1	ELECTRIC OPTION
19	74-1022-0	HANDLE GRIP	2	
20	7-10130-0	COACHBOLT M10 X 30	1	
21	2-1100	DAMPER ASSEMBLY	1	
22	74-1023-0	HINGE 50x50x6	2	
23	4-1005-1	WASHER FLAT M10 FORM A BZP	5	
24	8-10006-0	NUT M10 NYLOC	4	
25	7-6056-A	M6 X 15 BUTTON HD CAP	4	
26	4-6001-1	WASHER M6 FORM A BZP	8	
27	7-6007-0	SCREW - 6 X 15 CSK SCREW BZP	4	
28	4-6018-0	WASHER M6 X 20 X1.2 BZP	4	
29	8-6007-0	NUT M6 NYLOC	8	
30	4-8006	WASHER M8 FORM A BZP	2	
31	8-8008-0	NUT M8 NYLOC BZP	2	
32	9-10012-0	BOLT M10 X 60 BZP	1	
33	7-10005-0	SCREW SET M10 X 25 BZP	1	
34	7-8080-0	BOLT M8 X 20 HEX BZP	6	

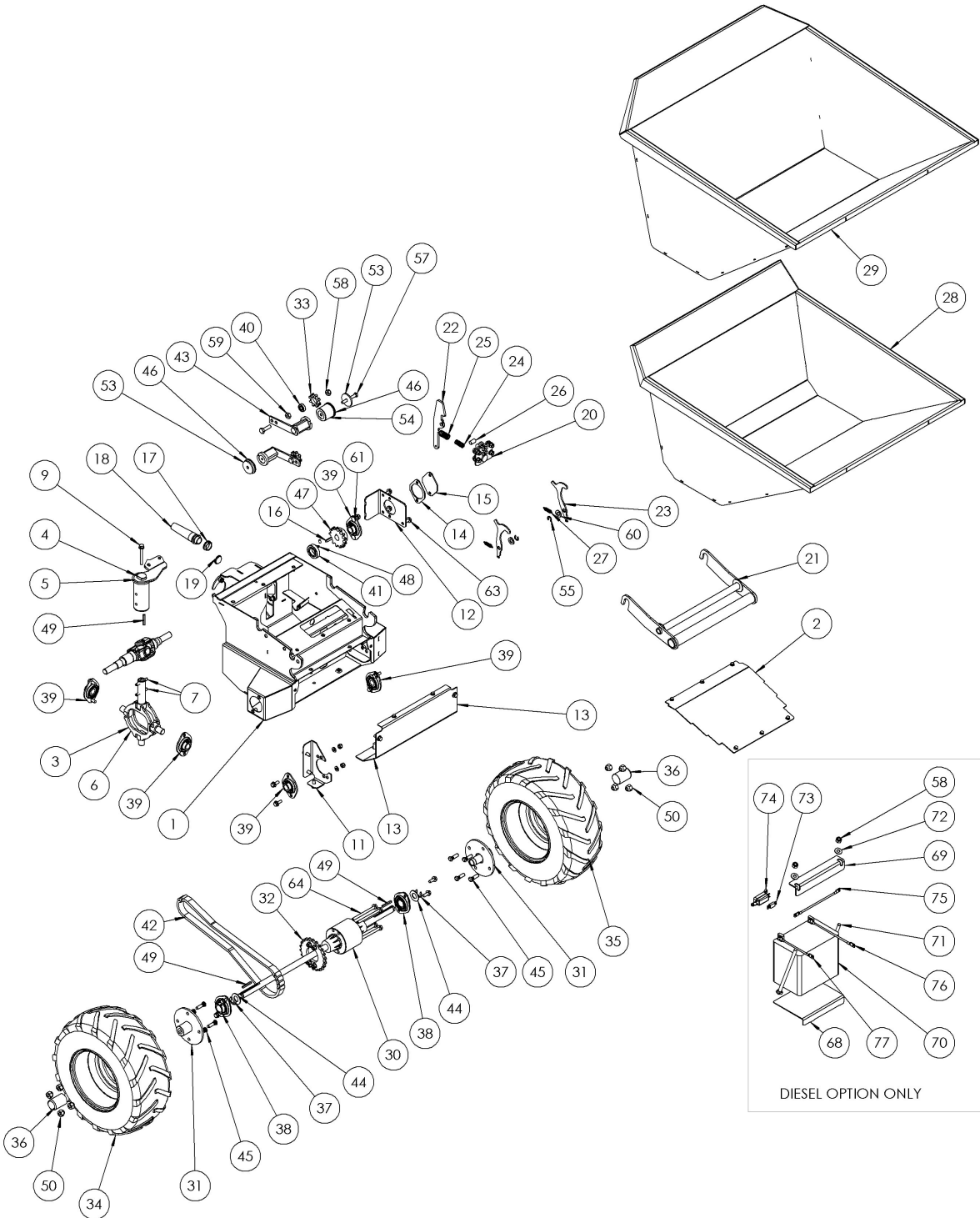
TOP FRAME - STEERING ASSEMBLY



FRONT CHASSIS - PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES	ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	101-03300-1	CHASSIS FRONT WA	1		40	53-0130-0	BEARING BALL 26x10x8	2	
2	101-99908-B	PRESSING MIDDLE COVER	1		41	53-0170-0	BEARING BALL 25x47x12	1	
3	101-04100-D	GIMBLE WA KEYED	1		42	21-2100-0	CHAIN 5/8" 67R FRONT	1	
4	101-04000-C	CENTRE STEERING PIVOT WA KEYED	1		43	2-1001-2	TENSIONER ASSEMBLY	2	
5	101-00500-G		1	SERIAL NO UPTO B151049	44	4-9021-0	WASHER 3/4" ID X 38 x 2.0	2	
6	101-00100-K	GIMBLE WA 3/4"	1	SERIAL NO UPTO B151049	45	7-10050-0	WHEEL STUD 3/8"X24UNF	8	
7	3-0093-0	PIN SPIROL 8 X 50 LONG	2	SERIAL NO UPTO B151049	46	4-9031-0	WASHER 50X8.5X1.5 BZP	6	
8	4-8006	WASHER M8 FORM A BZP	14		47	21-1500-0	COG 13T 66.32PCD	1	
9	7-8061-1	SCREW SET M8 X 70mm (PLAIN)	1		48	7-6031-0	SCREW GRUB M6 X 12	2	
10	4-8003	WASHER M8 SPRING BZP	2		49	21-1200-0	KEY 3/16"SQ X 40mm	3	
11	102-99921-9	PRESSING BEARING FRONT	1		50	8-3800-0	WHEEL NUT - 3/8" UNF	8	
12	101-99961-B	COVER BEARING FRONT	1		51	8-6011-0	RIVNUT M6 HEXAGON	8	
13	102-99948-C	PRESSING FRONT COVER	1		52	8-8011-0	RIVNUT M8 HEXAGON	4	
14	101-99943-B	SPACER BEARING COVER	1		53	102-99940-3	BOSS TENSIONER SUPPORT	2	
15	101-99942-B	PLATE BEARING COVER	1		54	104-99913-2	BOSS TENSIONER SPACER	1	
16	21-1600-0	KEY 6X6X25	1		55	3-1050-0	CLIP-E (TO SUIT DIA 12 SHAFT)	2	
17	70-5011-1	NUT 25mm BULK HD	1		56	7-10003-0	SCREW SET M10 X 35 BZP	2	
18	70-5030-0	CABLE GLAND	1		57	7-8088-0	BOLT M8 X 60 HEX BZP	1	
19	72-1000-0	BLANKING PLUG 25MM	1		58	8-10006-0	NUT M10 NYLOC	4	DIESEL OPTION
20	101-01200-E	SKIP CATCH BRACKET WA	1		59	8-10003-1	NUT M10 BZP	2	
21	101-02100-4	FRAME SKIP CARRIER W.A	1		60	4-1204-1	WASHER M12 FORM A BZP	2	
22	101-02901-E	PLATE SKIP CATCH	1		61	9-8067-0	BOLT M8 X 25 COACH	2	
23	101-99929-3	PRESSING TIP RETAINER	2		62	8-8008-0	NUT M8 NYLOC BZP	6	
24	2-1012-0	SPRING INNER	1		63	7-8080-0	BOLT M8 X 20 HEX BZP	24	
25	2-1013-0	SPRING OUTER	1		64	7-8037	DIFF BOLT 5/16" UNC X 4" FLANGED HEAD	4	
26	3-0091	PIN LATCH PIVOT	1		65	8-8024-0	NUT 5/16" UNC NYLOC BZP	6	
27	2-1007-1	SPRING EXT (RETAINER CATCH)	2		66	7-6060-0	SCREW M6 X 14 SER HD BZP	8	
28	100-00500-7	SKIP 300 W.A.	1	BENDI 300	67	7-8007-0	BOLT M8 X 35 BZP	1	
29	100-01100-D	SKIP 450 W.A.	1	BENDI 450	68	101-99957-A	PRESSING BATTERY CARRIER	1	DIESEL OPTION
30	6-1200-0	DIFFERENTIAL AXLE FRONT - 100-248EP-18024	1		69	101-99958-B	BRACKET BATTERY CLAMP	1	DIESEL OPTION
31	102-03100-4	HUB W.A.	2		70	70-2900-1	BATTERY 12V 101E	1	DIESEL OPTION
32	104-99925-0	GEAR 22T PCD111.55	1		71	9-10033-0	M10 X 220 COACHBOLT	2	DIESEL OPTION
33	104-99926-0	COG 8T 41.48PCD	2		72	4-1004-0	WASHER M10 FORM C BZP	2	DIESEL OPTION
34	60-6509RHF-0	WHEEL ASSY 16X6.5X8 RHS FLOAT	1		73	70-0138-0	FUSE INLINE 70A FLAT DIA6	1	DIESEL OPTION
35	60-6509LHF-0	WHEEL ASSY 16X6.50X8 LHS FLOAT	1		74	70-0130-0	FUSE HOLDER INLINE	1	DIESEL OPTION
36	72-0400-0	MOULDING HUB COVER	2		75	70-0144-0	POWER CABLE +VE 1200MM 6/6 DIESEL	1	DIESEL OPTION
37	3-1061-0	CLIP E- 3/4" SHAFT	2		76	70-0145-0	POWER CABLE -VE 1200MM 6/6 DIESEL	1	DIESEL OPTION
38	53-0110-1	BEARING BALL 25 bore mounted	2		77	70-0146-0	POWER CABLE +VE 300MM 6/6 DIESEL	1	DIESEL OPTION
39	53-0120-0	BEARING BALL 19.05 bore mounted	5						

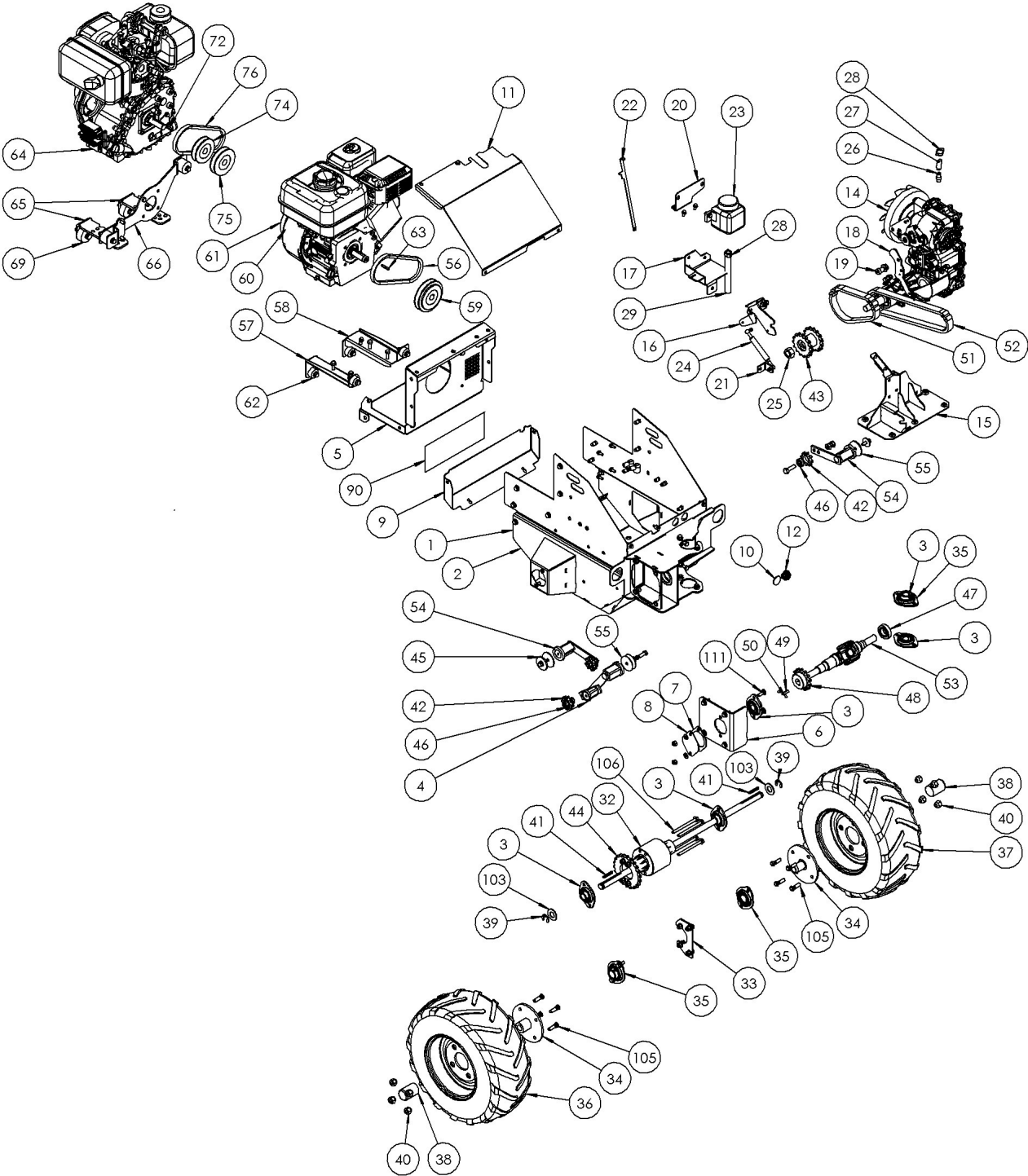
FRONT CHASSIS - ASSEMBLY



REAR ASSEMBLY PARTS LIST - ALL ENGINES

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES	ITEM NO.	PART NO	DESCRIPTION	QTY.	NOTES
1	101-03200-J	REAR CHASSIS WA	1		57	101-99926-0	PRESSING FOOT BRKT HONDA	1	PETROL OPTION
2	101-04400-A	REAR CHASSIS WA	1	SERIAL B151040 - B151049	58	101-99927-0	PRESSING DRAIN BRKT HONDA	1	PETROL OPTION
3	53-0120-0	BEARING BALL 19.05 bore mounted	5	SERIAL B151040 - B151049	59	21-3040-0	PULLEY SPA100-01 TPL1 610 0.75	1	PETROL OPTION
4	2-1009-0	TENSIONER SE11	1	SERIAL B151040 - B151049	60	20-1600-1	HONDA GX160	1	PETROL OPTION
5	101-99956-D	PRESSING ENGINE DECK	1		61	20-2000-0	ENGINE HONDA GX200 UT2 QX4	1	450 SKIP OPTION
6	101-99960-B	COVER BEARING REAR	1		62	21-0500-0	A V MOUNT 30x1.5xM8	4	PETROL OPTION
7	101-99943-B	SPACER BEARING COVER	1		63	21-0800-0	KEY 3/16"SQ X 2" X 30MM LG	1	PETROL OPTION
8	101-99942-B	PLATE BEARING COVER	1		64	20-4801-0	Diesel Engine L48N	1	PETROL OPTION
9	101-99917-F	PRESSING REAR COVER	1		65	101-99921-1	PRESSING YANMAR FOOT BRKT	2	DIESEL OPTION
10	72-1000-0	BLANKING PLUG 25MM	1		66	101-99933-B	PRESSING ENG. MOUNTING L48 (B)	1	DIESEL OPTION
11	101-99951-C	COVER REAR UNIT	1		67	101-99936-A	PRESSING L48 CORNER MOUNT	1	
12	70-5010-0	FITTING DIA 25MM BULK HD	1		68	21-0510-0	A V MOUNT 40x30xM8	2	
13	70-5002-0	BULK HD CLAMP NUT	1		69	21-0530-0	A V MOUNT 50x20xM10	2	DIESEL OPTION
14	6-2000-0	TRANSMISSION UNIT	1		70	4-8006	WASHER M8 FORM A BZP	45	
15	101-03600-F	BRACKET BASE WA	1		71	8-8008-0	NUT M8 NYLOC BZP	24	
16	101-99947-F	BRACKET LEVER DIRECTION	1		72	21-1000-0	KEY 3/16" X 23MM LONG	1	DIESEL OPTION
17	101-99949-E	BRACKET CORNER UPPER	1		73	7-8011-0	BOLT M8 X 20 HEX BZP	3	
18	101-99948-E	PLATE BRAKE LOCK	1		74	21-3070-0	PULLEY SPA71/01 HT6 WITH TPL1210 0.75	1	B450D OPTION
19	9-10034-0	SHOULDER BOLT M10 X 16	1		75	21-3060-0	PULLEY SPA80/01 HT6 WITH TPL1210 0.75	1	DIESEL OPTION
20	101-99953-C	BRACKET EXP TANK	1		76	21-3050-0	BELT - A18	1	DIESEL OPTION
21	101-99962-A	BRACKET DAMPENER	1		77	7-8004-0	SCREW SET M8 X 12 HTS BZP	6	
22	101-99952-C	PLATE PUMP OVERRIDE	1		78	4-8003	WASHER M8 SPRING BZP	8	
23	6-2001-0	EXPANSION TANK 71328	1		79	4-1003-0	WASHER - M10 SPRING BZP	2	
24	2-1300-0	DAMPENER STRUT	1		80	4-1007-A	WASHER FLAT M10 FORM A BZP	4	
25	8-19001-0	UNF 3/4" NUT	1		81	8-10006-0	NUT M10 NYLOC	6	
26	6-0001-0	ADAPTOR ST 7/16" UNC - 1/4" BSP SS	1		82	7-10004-1	SCREW SET M10 X 20 BZP	2	
27	6-0002-0	ELBOW 90DEG F-M 1/4" BSP - 1/4" BSPT SS	1		83	21-1800-0	KEY 8x7x40 LG ROUND END	1	
28	6-0003-0	HOSE PINCH CLIP 17/20	2		84	7-8010-0	SCREW CAP M8X25MM SCKT HD BZP	4	
29	6-0004-0	PIPE 3/4" REINFORCED CLEAR	1		85	21-1700-0	KEY 5x5x20 LG ROUND END	1	
30	2-1010-0	SPRING EXT	1		86	7-8007-0	BOLT M8 X 35 BZP	8	
31	2-1011-0	SPRING EXT 12.7X1.63X50.8 ENTEX 2128	1		87	72-1300-0	BOOT RA 16ID 8ID	2	
32	6-1300-0	DIFFERENTIAL AXLE REAR	1		88	8-6011-0	RIVNUT M6 HEXAGON	6	
33	101-99954-B	PLATE BEARING REAR	1		89	8-8011-0	RIVNUT M8 HEXAGON	25	
34	102-03100-5	HUB W.A.	2		90	800-11120-0	DECAL SHEET PETROL	1	
35	53-0110-1	BEARING BALL 25 bore mounted	3		91	9-8020-0	BOLT M8 X 60 BZP	2	
36	60-6509RHF-0	WHEEL ASSY 16X6.5X8 RHS FLOAT	1		92	9-8022-0	BOLT M8 X 70 BZP	3	
37	60-6509LHF-0	WHEEL ASSY 16X6.50X8 LHS FLOAT	1		93	7-8080-0	BOLT M8 X 20 HEX BZP	43	
38	72-0400-0	MOULDING HUB COVER	2		94	4-6001-1	WASHER M6 FORM A BZP	4	
39	3-1061-0	CLIP E-3/4" SHAFT	2		95	7-6037-0	1/4 UNF BY 5/8 LG SET SCREW	2	
40	8-3800-0	WHEEL NUT - 3/8" UNF	8		96	8-6007-0	NUT M6 NYLOC	2	
41	21-1200-0	KEY 3/16"SQ X 40mm	2		97	7-6060-0	SCREW M6 X 14 SER HD BZP	10	
42	104-99926-0	COG 8T 41.48PCD	3		98	7-8012-0	BOLT M8 X 25 BZP	4	
43	101-03700-E	SHAFT OUPUT DRIVE WA	1		99	7-4014-0	SCREW M4 X 20 HEX HD SET	1	
44	104-99925-0	GEAR 22T PCDD 11.55	1		100	4-4001	WASHER M4 FORM A BZP	2	
45	102-99940-3	BOSS TENSIONER SUPPORT	1		101	8-4005-0	M4 NYLOCK BZP	1	
46	53-0130-0	BEARING BALL 26x10x8	3		102	4-1004-0	WASHER M10 FORM C BZP	1	
47	53-0170-0	BEARING BALL 25x47x12	1		103	4-9021-0	WASHER 3/4" ID X 38 X 2.0	2	
48	21-1500-0	COG 13T 66.32PCD	1		104	8-8024-0	NUT 5/16" UNC NYLOC BZP	4	
49	21-1600-0	KEY 6X6X25	1		105	7-10050-0	WHEEL STUD 3/8"X24UNF	8	
50	7-4031-0	SCREW GRUB M6 X 12	2		106	7-8037	DIFF BOLT 5/16" UNC X 4" FLANGED HEAD	4	
51	21-2080-0	CHAIN REAR 5/8" SHORT	1		107	7-10003-0	SCREW SET M10 X 35 BZP	3	
52	21-2090-0	CHAIN REAR LONG 5/8"	1		108	8-10003-1	NUT M10 BZP	3	
53	21-0650-E	ASSEMBLY DRIVE JOINT	1		109	4-5002-0	WASHER M5 FORM A BZP	2	
54	2-1001-2	TENSIONER ASSEMBLY	3		110	8-5003-1	NUT NYLOC M5	2	
55	4-9031-0	WASHER 50X8.5X1.5 BZP	6		111	9-8067-0	BOLT M8 X 25 COACH	2	
56	21-3030-0	BELT - A22	1	PETROL OPTION	112	4-8004-1	WASHER M8 X 30 X 3	1	

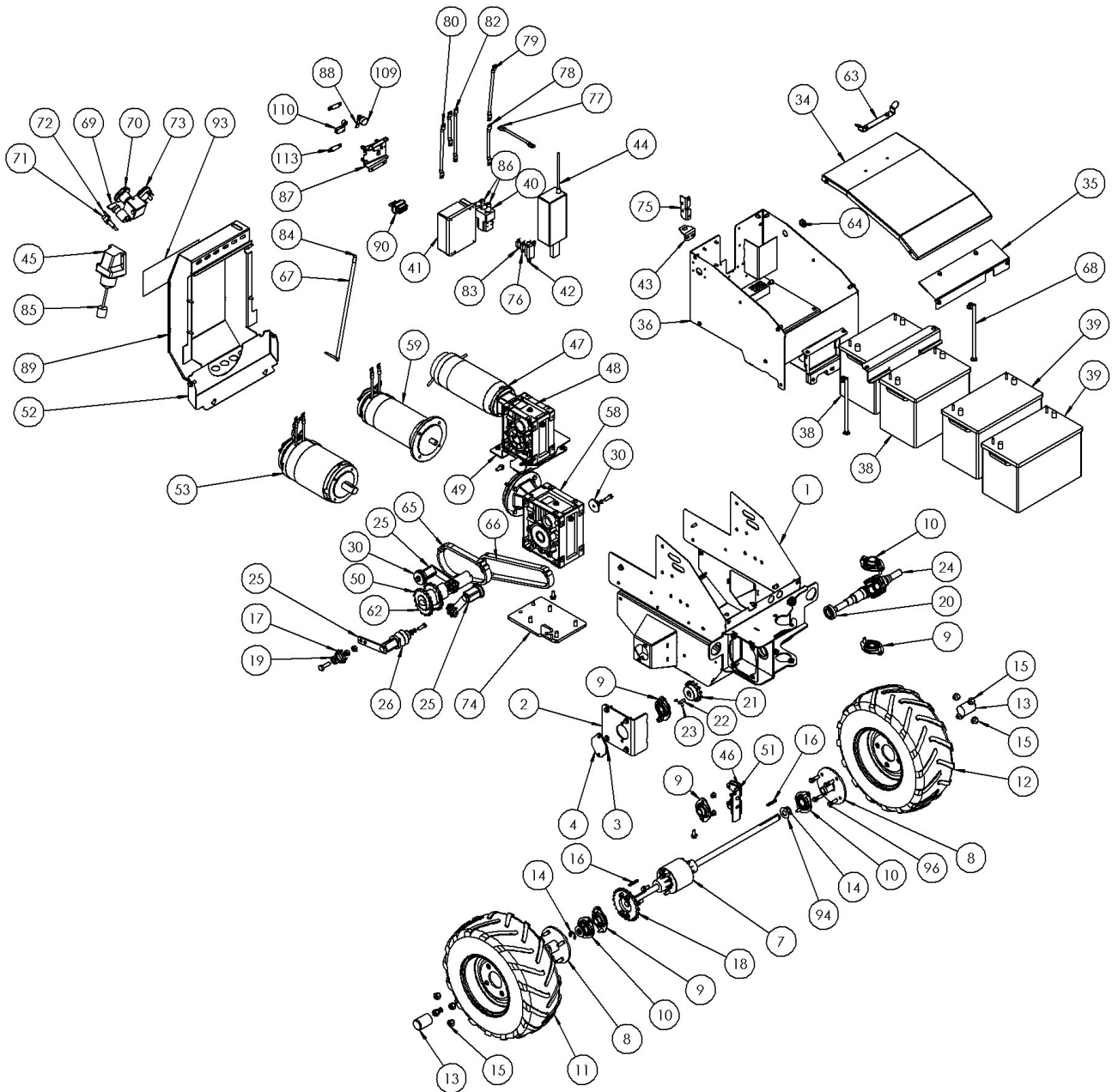
REAR ASSEMBLY - ALL ENGINE MODELS



ELECTRIC REAR ASSEMBLY - PARTS LIST

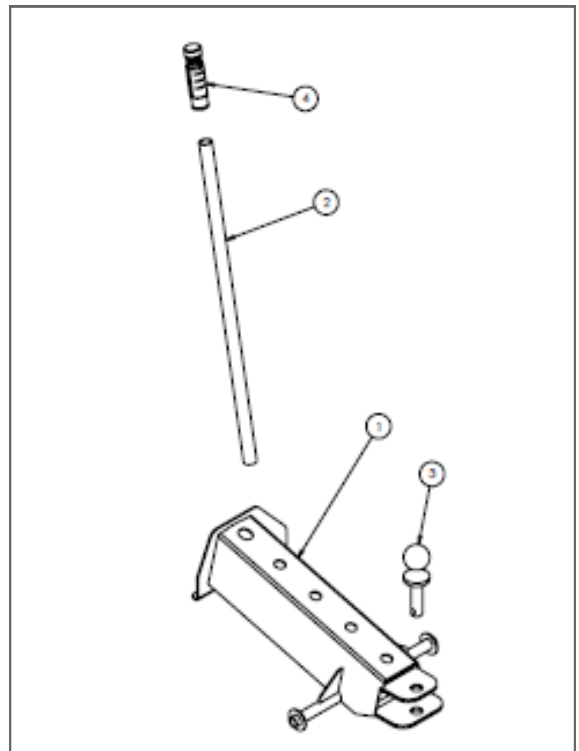
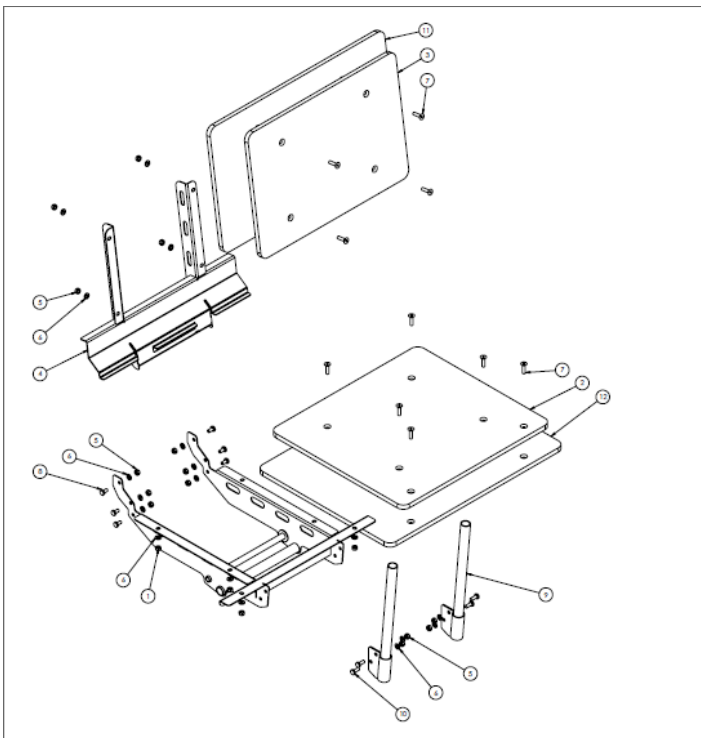
ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	101-03200-J	REAR CHASSIS WA	1	
2	101-99960-B	COVER BEARING REAR	1	
3	101-99943-B	SPACER BEARING COVER	1	
4	101-99942-B	PLATE BEARING COVER	1	
5	70-5010-0	FITTING DIA 25MM BULK HD	1	
6	70-5002-0	BULK HD CLAMP NUT	1	
7	6-1300-0	DIFFERENTIAL AXLE REAR	1	
8	102-03100-5	HUB W.A.	2	
9	53-0120-0	BEARING BALL 19.05 bore mounted	4	SERIAL B161056-B161064
10	53-0110-1	BEARING BALL 25 bore mounted	3	
11	60-6509RHF-0	WHEEL ASSY 16x6.5X8 RHS FLOAT	1	
12	60-6509LHF-0	WHEEL ASSY 16x6.5X8 LHS FLOAT	1	
13	72-0400-0	MOULDING HUB COVER	2	
14	3-1061-0	CLIP E- 3/4" SHAFT	2	
15	8-3800-0	WHEEL NUT - 3/8" UNF	8	
16	21-1200-0	KEY 3/16"SQ X 40mm	2	
17	104-99926-0	COG 8T 41.48PCD	3	
18	104-99925-0	GEAR 22T PCD111.55	1	
19	53-0130-0	BEARING BALL 26x10x8	3	
20	53-0170-0	BEARING BALL 25x47x12	1	
21	21-1500-0	COG 13T 66.32PCD	1	
22	21-1600-0	KEY 6X6X25	1	
23	7-6031-0	SCREW GRUB M6 X 12	2	
24	21-0650-E	ASSEMBLY DRIVE JOINT	1	
25	2-1001-2	TENSIONER ASSEMBLY	3	
26	4-9031-0	WASHER 50X8.5X1.5 BZP	6	
27	7-6060-0	SCREW M6 X 14 SER HD BZP	18	
28	4-6001-1	WASHER M6 FORM A BZP	2	
29	8-6007-0	NUT M6 NYLOC	4	
30	102-99940-3	BOSS TENSIONER SUPPORT	2	
31	7-8012-0	BOLT M8 X 25 BZP	5	
32	4-8003	WASHER M8 SPRING BZP	4	
33	4-8006	WASHER M8 FORM A BZP	18	
34	101-99964-A	TOP COVER BATTERY BOX	1	
35	101-99965-A	PRESSING ELECTRIC CENTRE COVER	1	
36	101-03800-D	BATTERY BOX W.A.	1	
37	101-99946-D	BATTERY CLAMP	1	
38	70-3000-0	Battery 24-AGM	2	
39	70-3100-0	Battery 27AGM	2	
40	70-0128-0	CURTIS SOL 24V CO	1	
41	70-0129-0	CURTIS DC MOTOR CONTROLLER	1	
42	70-0130-0	FUSE HOLDER INLINE	1	
43	101-99966-B	BRAKE PIVOT BRACKET	1	
44	70-0134-0	BATTERY CHARGER	1	
45	70-0137-0	240V 16A SKT INLET IN0021	1	
46	101-99973-C	BEARING REAR BRACKET	1	
47	70-0800-0	MOTOR 1000W	1	SERIAL B161056-B161064
48	6-1500-0	GEARBOX 30:1 30MM BORE 71B14	1	SERIAL B161056-B161064
49	101-03500-B	BRACKET ELECTRIC GEARBOX	1	SERIAL B161056-B161064
50	101-04200-B	OUTPUT SHAFT ELETRIC	1	SERIAL B161056-B161064
51	101-99968-A	BRACKET AXLE BEARING ELECTRIC	1	SERIAL B161056-B161064
52	101-99963-B	PRESSING REAR COVER ELECTRIC	1	
53	70-01200-0	MOTOR 1300W	1	
54	6-2200-0	GEARBOX 1300W	1	
55	21-1800-0	KEY 8x7x40 LG ROUND END	1	
56	7-8010-0	SCREW CAP M8X25MM SCKT HD BZP	4	
57	21-1700-0	KEY 5x5x20 LG ROUND END	1	
58	6-2100-0	GEARBOX TKM48B 71B5	1	
59	70-01000-0	MOTOR 1000W	1	
60	7-8007-0	BOLT M8 X 35 BZP	4	
61	8-8008-0	NUT M8 NYLOC BZP	9	
62	101-04300-A	OUTPUT SHAFT ELETRIC	1	
63	101-99967-A	BRACKET CABLE WRAP	1	
64	72-1600-0	GROMMET 20MM	1	
65	21-2200-0	CHAIN ELECTRIC 1ST	1	
66	21-2400-0	CHAIN 2.5/8"	1	
67	101-99969-A	BRAKE DISENGAGE LEVER	1	
68	9-10033-0	M10 X 220 COACHBOLT	2	
69	70-0136-0	IGNITION SWITCH	1	
70	70-0127-0	CURTIS ED125	1	
71	70-0135-0	FUSE HOLDER SCI R3-14 250V 10A	1	
72	70-0142-0	FUSE 10A ROUND	1	
73	70-0133-0	CURTIS 906R24HGAAO	1	
74	101-99972-B	BASE BRACKET GEARBOX	1	
75	101-99971-C	CABLE CLAMP BRACKET	1	
76	70-0131-0	FUSE INLINE 125A FLAT DIA6	1	
77	70-0121-0	POWER CABLE -VE 400MM 8/8	1	
78	70-0122-0	POWER CABLE +VE 650MM 8/6	1	
79	70-0123-0	POWER CABLE +VE 400MM 8/6	1	
80	70-0124-0	POWER CABLE -VE 600MM 8/6	1	
81	70-0125-0	POWER CABLE +VE 125MM 8/6	1	
82	70-0126-0	POWER CABLE +VE 850MM 8/6	1	
83	70-0132-0	FUSE INLINE 100A FLAT DIA6	1	
84	72-1100-0	PVC CAP RED DIA10 X 25 LONG	1	
85	70-0139-0	POWER CABLE UK PLUG	1	
86	72-1300-0	BOOT RA 16ID 8ID	2	
87	101-99970-C	BRACKET POTENTIOMETER	1	
88	101-99975-A	CLAMP LEVER POTENTIOMETER	1	
89	101-03900-D	MOTOR COVER WA	1	
90	70-6000-0	CABLE HARNESS	1	
91	8-8011-0	RIVNUT M8 HEXAGON	10	
92	8-6011-0	RIVNUT M6 HEXAGON	12	
93	800-11122-0	DECAL SHEET ELECTRIC	1	
94	4-9021-0	WASHER 3/4" ID X 38 X 2.0	2	
95	8-8024-0	NUT 5/16" UNC NYLOC BZP	4	
96	7-10050-0	WHEEL STUD 3/8"X24UNF	8	
97	7-8080-0	BOLT M8 X 20 HEX BZP	28	
98	7-8037	DIFF BOLT 5/16" UNC X 4" FLANGED HEAD	4	
99	7-10003-0	SCREW SET M10 X 35 BZP	3	
100	8-10003-1	NUT M10 BZP	2	
101	8-10006-0	NUT M10 NYLOC	5	
102	4-5002-0	WASHER M5 FORM A BZP	1	
103	8-5003-1	NUT NYLOC M5	2	
104	9-8067-0	BOLT M8 X 25 COACH	2	
105	4-1004-0	WASHER M10 FORM C BZP	2	
106	4-8004-1	WASHER M8 X 30 X 3	1	
107	7-10100-0	BOLT M10 X 30 HEX BZP	4	
108	72-1400-0	SPACER F/R SW	1	
109	70-0140-0	POTENTIOMETER CURTIS CM4475	1	
110	70-0141-0	MICROSWITCH ROLLER	1	
111	72-1500-0	SPACER THIN F/R SW	1	
112	2-1010-0	SPRING EXT	1	
113	2-1014-0	SPRING EXT	1	
114	7-6037-0	1/4 UNF BY 5/8 LG SET SCREW	3	
115	8-6001-0	NUT M6 BZP	3	
116	7-5025-0	M5 X 25 BZP	1	
117	7-3013-0	M5 X 20 SCREW HEX HD BZP	2	

ELECTRIC REAR ASSEMBLY



TRUXTA ATTACHMENTS: FLAT BED & TOW BALL - PARTS LIST

FLAT BED ATTACHMENT FOR TRUXTA				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	73-0100-H	FLAT BED W.A.	1	
2	73-0111-C	FLAT BED BASE	1	
3	73-0112-B	FLAT BED REAR	1	
4	73-0900-G	FLATBED REAR WA	1	
5	8-10006-0	NUT M10 NYLOC	20	
6	4-1005-1	WASHER FLAT M10 FORM A BZP	20	
7	7-10041-0	COUNTERSUNK M10 X 40 BZP	10	
8	7-10004-1	SCREW SET M10 X 20 BZP	6	
9	OPTT13-DIO-0	LOAD STOPS FLATBED ATT	1	LOAD STOPS OPTION
10	7-10005-0	SCREW SET M10 X 25 BZP	4	
11	73-0120-A	FLAT BED REAR 450	1	450 OPTION
12	73-0119-A	FLAT BED BASE 450	1	450 OPTION



TOW BALL ATTACHMENT FOR TRUXTA			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	73-1500-B	HANDLE TOW ATTACHMENT	1
2	73-1400-A	TOW BALL C/W CLEVIS PIN	1
3	73-1300-C	BODY TOW ATTACHMENT	1
4	74-1022-0	HANDLE GRIP	1

Your new TRUXTA is warranted to the original purchaser for a period of one-year (12 months) from the original date of purchase.

The TRUXTA warranty is against defects in design, materials and workmanship.

The following are not covered under the TRUXTA warranty:

- 1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.
- 2. Alterations, additions or repairs carried out by persons other than Tufftruk or their recognised agents.
- 3. Transportation or shipment costs to and from TRUXTA or their recognised agents, for repair or assessment against a warranty claim, on any machine.
- 4. Materials and /or labour costs to renew repair or replace components due to fair wear and tear the following components are not covered by warranty.
 - Drive belt
 - Engine air filter
 - Engine spark plug

TRUXTA and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose

Warranty Claims

All warranty claims should firstly be directed to the point of purchase: your TRUXTA reseller / distributor

Keep a record of the warranty form for your records

For warranty claims: Tel 01666 500123 or Email; truxtasales@tufftruk.co.uk

Any warranty issues please do contact your place of purchase.

To Register your Warranty please complete the warranty form and post to
 TRUXTA SALES
 Unit 1 Hampton Street Ind Est.
 Hampton Street
 Tetbury, Glos
 GL8 8LD
 Tel 01666 500123
truxtasales@tufftruk.co.uk

Alternatively scan / photocopy and Email the completed warranty form to truxtasales@tufftruk.co.uk

Also for your records , please complete this warranty registration in operator manual.

DATE OF PURCHASE

PLACE OF PURCHASE/ COMPANY

CUSTOMER NAME

ADDRESS

MACHINE MODEL NO

SERIAL NO OF MACHINE

Your local TRUXTA Dealer



UK & EIRE

TRUXTA SALES
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