

Operating Manual & Routine Servicing

HiC40



Compact Tracked Jaw Crusher



Taylor Construction Plant Ltd.

Quayside Industrial Park
Bates Road, Maldon
Essex, CM9 5FA

Tel: +44 (0)1621 850777

Fax: +44 (0)1621 843330

mail@tcp.eu.com

www.tcp.eu.com

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Foreword

Thank you very much for purchasing this Taylor Construction Plant Ltd product. We believe that it will serve you without fail. Ensure that you read the Operator's Manual carefully before use. With proper handling and maintenance, this TAYLOR CONSTRUCTION PLANT Ltd product will provide excellent service over an extended period of time.

Registration

Each machine supplied by TAYLOR CONSTRUCTION PLANT Ltd is accompanied by a registration card. This card must be completed in full and returned to:

Warranty Manager (email: warranty@tcp.eu.com)

Taylor Construction Plant Ltd.

Quayside Industrial Park

Bates Road

Maldon

Essex, CM9 5FA

Failure to register your machine may invalidate the manufacturer's warranty.

Liability

The warranty period begins when the product is delivered to and installed at the first purchaser. Only genuine parts may be used to carry out repairs. Failure to use only genuine parts may invalidate the Manufacturers Warranty.

TAYLOR CONSTRUCTION PLANT Ltd will not be held responsible if:

- (i) the machine has been used to perform tasks that demand more than it's design and strength limitations, or
- (ii) the machine has undergone modifications not approved by TAYLOR CONSTRUCTION PLANT Ltd, or
- (iii) conditions of use have been abnormal, or
- (iv) normal maintenance, with regard to requirements as set out and detailed by the manufacturer, have not been adhered to.

TAYLOR CONSTRUCTION PLANT Ltd will not pay for normal maintenance or servicing nor any materials used to carry out routine servicing.

The warranty liability of TAYLOR CONSTRUCTION PLANT Ltd is limited to diagnosis, repair or replacement of the defective part, and actuating the repair - depending on the product terms and conditions, this will be free of charge.

TAYLOR CONSTRUCTION PLANT Ltd shall be under no liability whatever to the customer for any indirect loss and/or expense (including loss of profit) suffered by the customer arising out of a breach by TAYLOR CONSTRUCTION PLANT Ltd of this contract.

Warranty Audits and Surveys

TAYLOR CONSTRUCTION PLANT Ltd reserves the right to carry out audits and inspections from time to time in relation to any reimbursed or outstanding warranty claims in order to determine that all relevant details and information is correct.

Service and Warranty Training

Service and warranty training for service fitters can be requested in writing. Initial training is to be carried out at an appropriate TAYLOR CONSTRUCTION PLANT Ltd workshop. Once this initial training has been carried out, you are responsible to carry further training as required by your own service centre or depot network.

Service Bulletins

TAYLOR CONSTRUCTION PLANT Ltd may from time to time issue service bulletins to keep you up to date as to any improvements or changes that may take place on the complete assembly or component parts.

Warranty Terms for Machines

Model	Terms
TAYLOR CONSTRUCTION PLANT Hi-T500 tracked dumper	One year or 1200 hours whichever occurs first from date of installation
TAYLOR CONSTRUCTION PLANT Hi-C40 mobile crusher	One year or 1200 hours whichever occurs first from date of installation

ALL ENGINE WARRANTY ISSUES MUST BE DIRECTED TO THE ENGINE MANUFACTURER, OR THE MANUFACTURERS APPROVED/APPOINTED ENGINE DEALER.

General Exclusions:

THE FOLLOWING ARE WARRANTY EXCLUSIONS AS DETERMINED BY KUBOTA:
Service items including lubricants, coolants, filters, glow plugs, fan belts, fuel injection equipment, stop solenoid, leaks (oil, water and air), IN ADDITION: paintwork, wear parts and tracks.

Warranty Claim Submission Procedures

Claims must be reported accurately and all relevant details given, as follows:

OWNERS NAME AND ADDRESS: full name and address of customer and site location, if different

MACHINE TYPE: State machine type, i.e. Hi-T500, tracked dumper, Hi-C40, crusher

DATE OF FAILURE:

INSTALLATION DATE: The actual date of installation, not invoice date

SERIAL NUMBER: Serial number of unit

ENGINE NUMBER: Serial number of engine

HOURS USED: State hours used on hour clock. Please do not guess the hours used

DETAILS OF FAILURE: Give a full report on the failure

ORDER NUMBER: An order number **will** be required

Note: the order number is to cover the diagnostic and call out time, as well as to determine the following:

(i) That the failure is to be covered under the terms and conditions of warranty. If this is the case, then the costs will be covered by TAYLOR CONSTRUCTION PLANT Ltd and the **order number will not be used**.

(ii) If the failure is determined to be of a non-warrantable nature, further authorisation to continue will be sought before any rectification work takes place.

The information above must be provided even if your warranty claim is a “parts only” claim. An invoice will be raised for the exchange parts. The reported faulty/defective part must immediately be returned to TAYLOR CONSTRUCTION PLANT Ltd and full inspection of the parts carried out, if the failure is covered under the terms and conditions of warranty a credit note corresponding to the invoice will be despatched to the customer. If the failure is deemed to be of a non-warrantable nature, the invoice should be settled immediately.

Kubota UK Engine Dealers:

Bryce Group Ltd.

Daimler Close, Royal Oak Industrial Estate, Daventry, Northants NN11 5QJ.

Tel:- 01327- 876166 Fax :- 01327- 300244

admin@bryco-diesel-engines.co.uk www.bryco-diesel-engines.co.uk

C.M.H. LTD.

Maudlins Industrial Estate, Monread Road, Naas, Co Kildare, Eire.

Tel :- 00-353-458-76225 Fax :- 00353-459-7476

cmhltd@gofree.indigo.ireland

Hurley Engine Services.

Unit 7, The Maltings Industrial Estate, Brassmill Lane, Bath, Somerset, BA1 3JL.

Tel :- 01225-336812 Fax :- 01225-442477

info@hurleyengines.co.uk

J & E Motor Engineers.

23 Polmont Road, Laurieston, Falkirk, FK2 9QQ.
Tel :- 01324-633266 Fax :- 01324-633870
jem.engines@btopenworld.com

John A Sparks & Co. Ltd.

Western Industrial Estate, Caerphilly, CF83 1BQ,
Tel :- 02920-807080 Fax :- 02920-8707081
kevinashworth@a-sparks.com www.a-sparks.com

Meetens Industrial Engines Ltd.

261-269, Coombe Lane, Wimbledon, SW20 0RH,
Tel :- 0208-9464244 Fax :- 0208-9472595.
sales@meetens.com

Northern Lift Trucks (Northern Ireland) Ltd.

1 Flush Park, Knockmore Road, Lisburn, BT28 2DX.
Tel :- 02892-673111 Fax :- 02892-660618
info@northern-group.co.uk

Phoenix Power Services.

Unit 12, Thames Trading Centre, Woodrow Way, Irlam, Manchester M44 6BP.
Tel :- 0161-775-4053 Fax :- 0161-776-2047.
phoenixpower@btclick.com

Sean Cleary & Son Eng.Ltd. I.D.A. Industrial Estate, Dublin Road, Loughrea, Co.Galway, Eire.

Tel :- 00-353-91-841420 Fax :- 00-353-91-842823
paddyCleary@eircom.net

Sleeman & Hawken Ltd.

Bridge Road, Shaldon, Devon, TQ14 ODD.
Tel :- 01626-872750 Fax :- 01626-873767.
keithmason@sleeman-hawken.demon.co.uk

Trucks Morley Ltd.

Bruntcliffe Road, Morley, Leeds, LS27 0JZ
Tel :- 0113-2526777 Fax :- 0113-2380310.
trucksmorley@tiscali.co.uk

Universal Engine Power Ltd.

Unit 9, Fritch Industrial Estate, Chelmsford Road, Great Dunmow, Essex, CM6 1XJ.
Tel :- 01371-875331 Fax :- 01371-874777
info@unipower.uk.com www.unipower.uk.com

Wood Leigh Power Equipment Ltd.

Unit 20, Highcroft Industrial Estate, Enterprise Road Horndean Waterlooville Hants PO8 0BT.
Tel :- 02392-571360 Fax :- 02392-592056.
enquiries@woodleighpower.free-online.co.uk www.woodleighpower.co.uk

Yardbury Kinetics Ltd.

Altens Trade Centre, Hareness Circle, Aberdeen AB12 3LY
Tel :- 01224-897947 Fax :- 01224-872374
a.huntley@yardburykinetics.com

CERTIFICATE OF CONFORMITY

We declare that this product complies with the following Standards/Directives.

Machinery Directive 89/392/EEC as implemented by The Supply of Machinery (Safety) Regulations 1992 (Amended 1994).

BS/EN500 Mobile road construction machinery (Safety)

Product	:Tracked Crusher
Model	:HiC 40
Serial No	:HiC-Bxxxx
Manufacturer Date	:xx/xx/2002

Signed: *P Drew*

Date: xx/xx/2002

Mr Paul Drew
Development Manager

This is a sample certificate of conformity inserted in this manual for reference, each machine is issued with a bespoke certificate sent to the head office of the purchaser, copies are available on the request of purchaser.

1. Introduction

Please read carefully and understand before operating the equipment.

This Handbook is provided as a guide to familiarise the operator and service engineer with the controls, recommended inspections, start-up, operating, and shutdown procedures for HiC40 range of equipment.

Safety Precautions

*This piece of equipment is designed as a compact tracked jaw crusher.
At no time should loads larger than the design capacity be crushed.
Only operate the crushing mode when the unit is stationary.
Keep arms/hands clear of moving parts at all times.*

**FAILURE TO COMPLY WITH WARNINGS COULD RESULT
IN SERIOUS PROPERTY DAMAGE AND POSSIBLE
PERSONAL INJURY.**

The machine should be properly operated and maintained to keep it in safe efficient operating condition. Ensure that all controls are free of mud, grease, or other matter that might cause slips hazardous to the operator, serviceman, or other personnel or equipment.

Report all malfunctions to those responsible for maintenance. Do not operate the equipment until corrected. Normal service or maintenance performed as required can prevent unexpected and unnecessary down time. This handbook describes general inspections, servicing and operation with the normal safety precautions required for normal servicing and operating conditions.

Operators and Servicemen must be safety conscious and alert to recognise potential operating or servicing safety hazards at all times, and take, necessary precautions to ensure safe operation and servicing of the machine.

All information, illustrations and specifications contained in this publication are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice

Continuing improvement and advancement of the design may cause changes to your machine that may not be included in this publication.

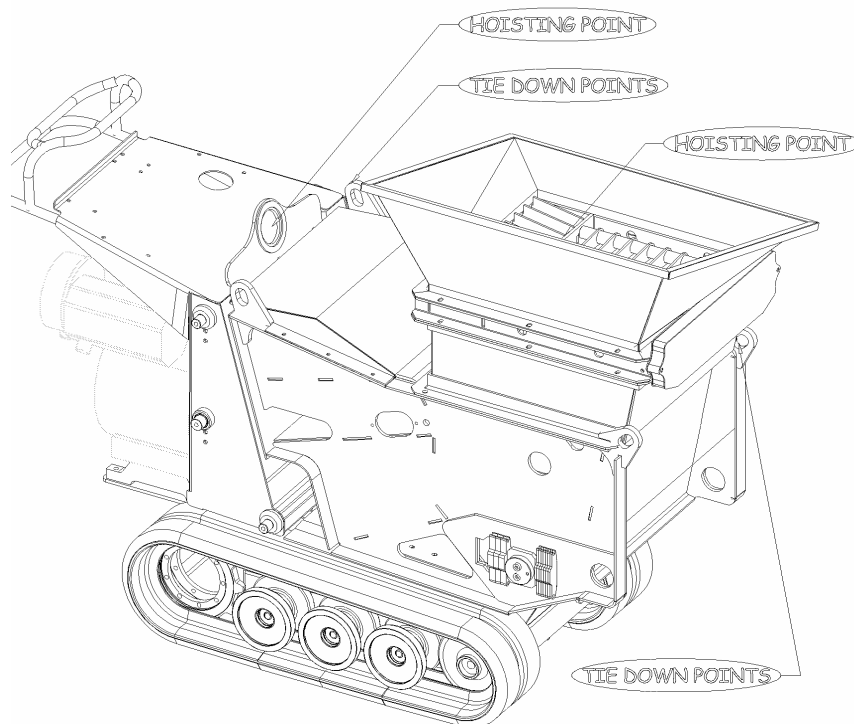
This Handbook contains lubrication and routine servicing instructions, most of which can be performed in the field. Service manual containing repair and rebuild procedures are available from the factory.

Transporting the Crusher

If the Crusher cannot be driven onto its transport vehicle, a hoist can be used to place it onto the vehicle.

Use the two lifting points shown (i.e. lifting eye on main chassis and the cross bar of the fixed grizzler), to ensure that the Crusher lifts evenly.

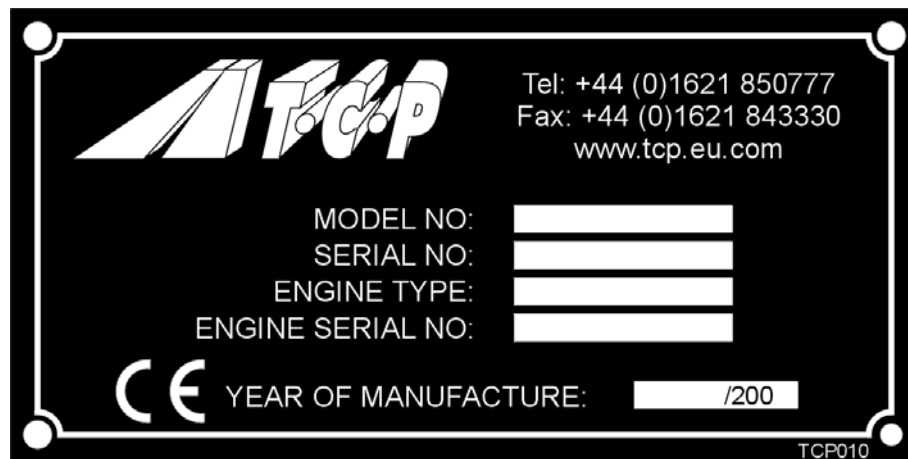
Never use the tie down points – THESE ARE NOT LIFTING POINTS.



Machine Identification

Whilst reading this handbook you will notice references to controls and equipment that may not be found on all machines. It is important that you know your machine and its equipment and how to operate it properly.

Information regarding the machine model, code and chassis serial number is on the unit serial number plate. This plate is on the rear Left-hand side the machine model and serial number should always be referenced in any correspondence with your dealer or factory.



Data Plate (fig 1)

Theft Deterrent Practices

The owner/operator should take the following precautions to discourage theft, to aid in recovery in the event that the machine is stolen, or to reduce vandalism.

Actions to Discourage Theft and vandalism

- Remove all keys any time the machine is left unattended.
- Immobilise the machine by removing a critical electrical or starting system device.
- Upon receipt of a machine, record the machine serial number and the serial numbers of all-major components and attachments. Keep this list up to date and filed in a safe location for fast retrieval.
- Place a decal or notice on the machine stating that all serial numbers are recorded.

- Discourage the thief! Inspect the gates and fences of the machinery storage yard or construction site. Keep machines in well-lit areas and ask the local law enforcement authorities to make frequent checks around the storage yard or work site.
- Establish liaison with neighbours and ask them to watch equipment left at job sites and to report any suspicious activities to local law enforcement authorities.
- Make frequent inventories of machines to promptly detect losses or vandalism.

Actions to aid in recovery of stolen machines

In the event of theft, immediately notify the law enforcement authorities having jurisdiction. Provide the investigating officer with name, type of equipment, chassis and serial numbers of major attachments and components. It would be helpful to show the investigating officer an Operator's Handbook, photographs, and advertising, to familiarise him with the appearance of the machine.

Report the theft to the insurance company. Provide the model and all serial numbers.

Report the model and serial numbers of the stolen machine to a dealer handling the respective line of equipment. Request that the dealer forward this same information to the equipment manufacturer.

2. Safety Precautions

General



- Read this operator's Handbook and learn the operating characteristics and limitations of the machine. Know what operating clearances the machine requires.
- Know clearances of all side and overhead obstructions such as wires, etc., for operating safety.
- Be aware of operating hazards that weather changes can create on the job. Know proper procedures to follow when a severe rain or electrical storm strikes.
- Never attempt to operate or work on a machine when not feeling physically fit.
- Know what safety equipment is required and use it. Such equipment may be hardhat, safety glasses, reflector type vests, respirators and earplugs.
- Never wear loose clothing, rings, and watches etc. that might catch levers and controls and cause loss of control.
- Keep hand controls free from water, grease and mud to assure non-slip control.
- Handle fuels and lubricants carefully and clean up spills to avoid fire and slipping hazards.
- Never rush. Walk do not run.

Preventing Fire Hazards



General Fire Precautions

- Clean all dirt, oil, grease and other fluids from systems and components to minimise fire hazards and aid in spotting loose or leaking lines, fittings etc.
- Check the engine for rubbish, oily rags or other debris that could cause fires before starting the engine.
- Safely dispose of greasy, oily rags or similar hazards.
- Flammable Fluid Precautions
- Don't use diesel fuel or other flammable fluids for cleaning purposes. Use approved non-flammable solvents.
- Make sure all-fluid systems caps, drain, valves, fittings, lines etc., are secure and leak free.
- Never use an open flame (match, lighter etc.) when checking fuel, lubricant, coolant and battery fluid levels or when checking for fluid leaks. Use a flashlight or other safe lighting only.
- Shut off engine and use extra caution if engine is hot when refuelling. Never smoke while checking or adding fuel or other fluid or handling fluid containers and lines.
- Use care and do not stand downwind when adding fuel or other flammable fluids to tanks and reservoirs to avoid fluids being blown or splashed onto clothing.
- Close fuel tank shut-off valves, if used, before servicing fuel system.
- When preparing machines or components for storage, seal and tape all openings and close containers tightly to seal in all volatile inhibitor fluids and compounds used.
- Follow manufacturer's recommendations when handling and using engine-starting fluids and disposing of spent containers. Do not puncture or burn empty containers. These fluids are explosive and highly flammable.

Precautions Electrical Hazard.



- Never smoke or allow open flames or sparks near batteries.
- Leave battery box open when charging batteries in machine for adequate ventilation of explosive gas (Hydrogen) produced.
- Always disconnect batteries before repairing electrical system to avoid danger of fire-causing sparks. Disconnect battery ground cable first and reconnect last.
- Always disconnect batteries and alternator leads before carrying out any welding on the machine.
- Never check battery state of charge by placing metal objects across battery posts.
- Use jumper cables only as recommended. Improper use can result in battery explosion or unexpected machine motion.
- Never operate engine starter for more than 15 seconds and allow 30 seconds between cranking periods for cooling. An overheated starter could cause a fire.

Pre-Starting



- If engine is to be started and run indoors, ensure proper ventilation to remove deadly exhaust gases.
- Always perform 'Pre-Starting Inspection' instructions described in this manual to ensure the machine is ready for operation.

Starting



- Do not start the engine or operate any control if there is a 'DO NOT OPERATE' or similar warning sign attached to any control.
- Use jumper cables only as recommended. Improper use can result in battery explosion or unexpected machine motion.
- Always obey 'Starting the Engine' instructions.
- Start and operate the machine **only** from the operator's station.

Operating



- The HiC40 has been designed to efficiently and safely crush a variety of ,otherwise waste, building materials to size which makes them suitable as a fill material. There are hazards with this type of operation and equipment that we have assessed and addressed by various methods, (from warning labels to the safety ring fence and interlocks), you **MUST** ensure you are familiar with **ALL** the safety features of this equipment and ensure **ALL** potential users are correctly trained in its use.
- Always perform 'Pre-Operating Checks' described in this manual to ensure the machine is ready for operating.
- Ensure crusher is on firm level ground with clearance for loading and stock-piling or removal of crushed material.
- A safety 'RING FENCE' has been designed and fitted to this equipment for the operators safety, **DONOT** operate without this in place, or override the safety interlocks to which it connects.
- The ring fence cable should be adjusted using the tension turnbuckle, with sufficient tension to hold the interlock switches in the green band, the blue reset buttons can then be pulled out and set for the machine to operate.
NB. Both interlocks must be set.

- The emergency stop button is interlocked with a key, the button should be pulled up for operation and the key removed, we recommend the key is kept with the ignition key for the equipment.
- Check on a regular basis the operation of the ring fence by applying pressure to the safety cable and ensuring the crusher immediately ceases crushing and shuts down the engine.
- Further protection is afforded to the operator by the sprung loaded grizzler bars fitted inside the hopper, these have been designed to prevent and warn operatives of potential serious injury areas of the machine. If the grizzler bars are distorted, or non-operational in any form the crusher should NOT be used until this is corrected.
- The green push button on the operating console commences and stops the crushing mode.
- Only feed the crusher with material that will readily pass through the protected hopper opening (max 400mm x 400mm)
- Do not overfill the feed hopper, material may snag and jam in the hopper, reducing the efficiency of the machine.
- In the event of material jamming in the hopper always shut down the machine before clearing the jam. Use the emergency stop button.
- NB. After the use of the emergency stop button , on restarting, the crusher is designed to ALWAYS start with a withdrawal stroke, this is an important safety feature that may be needed to remove unsuitable material from the crushing zone.
- The crusher jaw gap can be altered to produce different sizes of crushed material (20mm-60mm). The unique Adjustacrush system is covered in a separate section of this manual.
- When crushing relatively thin materials (i.e. waste paving slabs) always crush to a size less than the thickness of that material. Conveyor belt damage and jamming could otherwise occur.
- Tracking the machine: the HiC40 can be moved both with the safety ring fence in place or removed. In the removed condition the machine will only operate the track drive system, will start and stop on the ignition key.
- **NEVER track the machine whilst in crushing mode.**
- The machine has as default a slow inching speed for safe tight manoeuvring, a higher speed can be engaged using the red high speed button as instructed on the operating decal.
Only use the higher speed when you are confident of ground conditions, obstacles, and a route clear of other personnel or equipment.
- Always try to face or look in the direction the machine is travelling.
- Always operate straight up or down slopes whenever possible. Side-hill operation can cause sideslip and possible rollover.
- Slow down when moving in congested areas.

Lubrication and Servicing

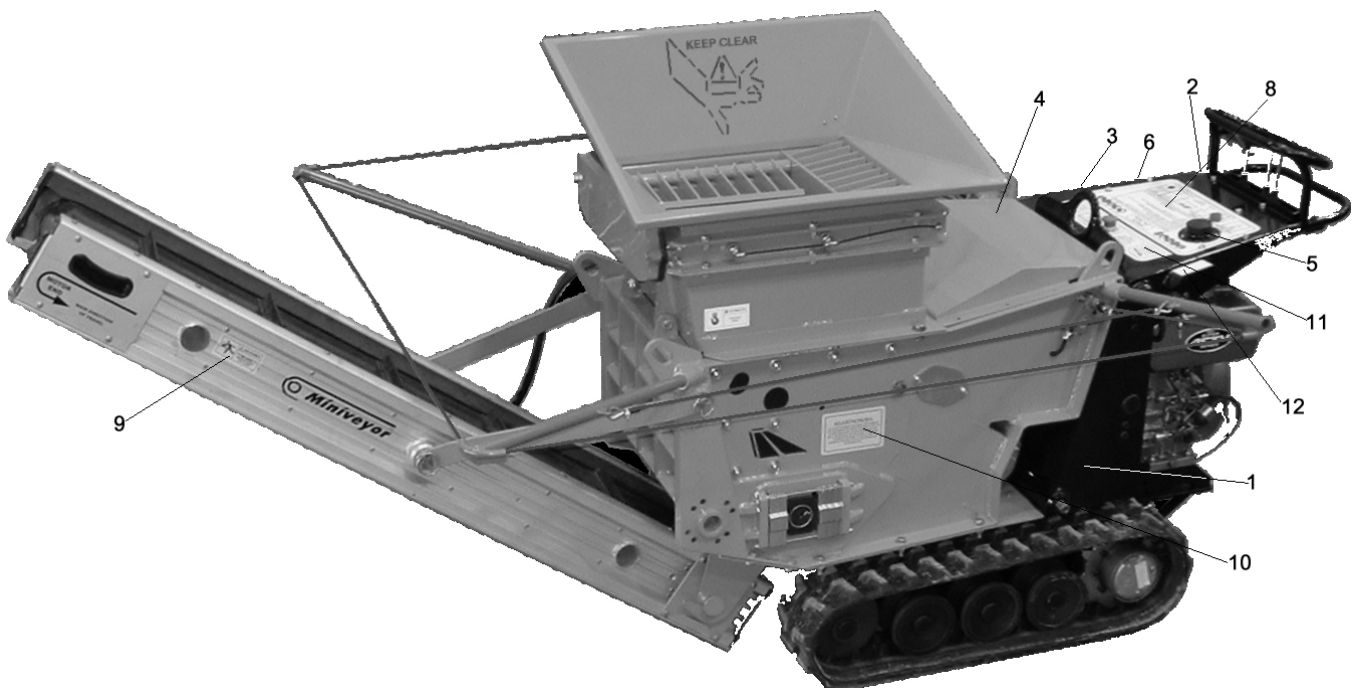


- Do not allow unauthorised personnel to service or maintain the machine. Study the Operator's handbook and Service Manual before starting, operating or servicing the machine.
- Do not work under or near unblocked or unsupported machine.
- Do not work under or near any unblocked or unsupported linkage, part or machine.
- Always relieve pressure before servicing any pressurised system.

Decals.

Decals fitted to machines may vary from country to country to suit local needs. These pages contain a brief description and the location of the decals and control plates that may appear on this machine.

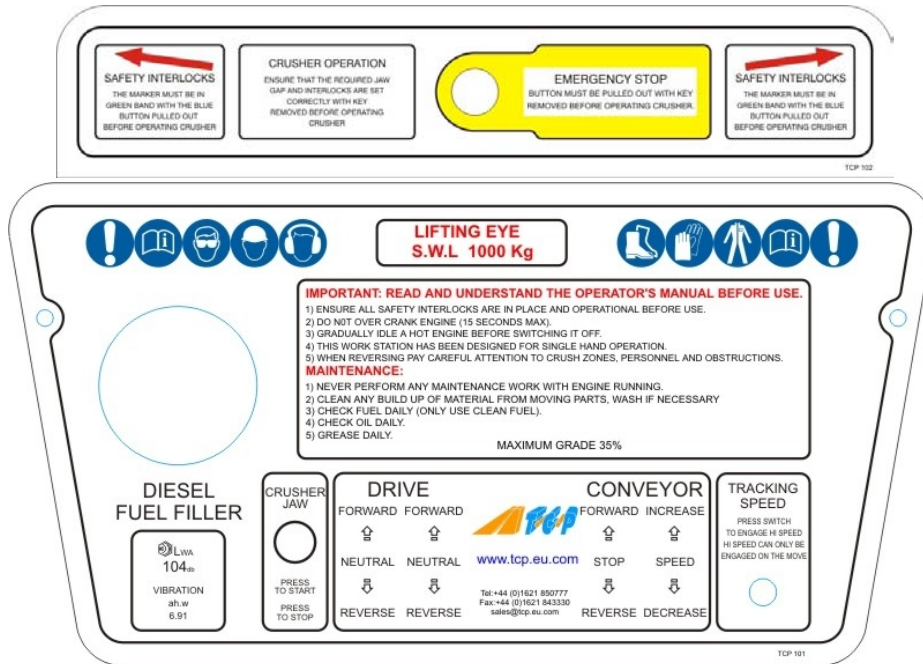
Ref	Part Number	Part Name	Qty
1	80-0001	"Serial Data Plate"	1
2	80-0003	"Warning Crush Zone"	1
3	80-0004	"Warning Hot Exhaust"	1
4	80-0005	"Hydraulic Oil Filler"	1
5	80-0006	"Fuel Filler"	1
6	80-0007	"CE Marking"	1
7	80-0009	"Danger Keep Clear"	2
8	80-0016	"Hi Low Control Panel"	1
9	80-0017	"Warning Conveyor"	3
10	80-0018	"Adjustacrush"	2
11	80-0019	"Emergency Stop"	1
12	80-0020	"Starting Instruction"	1



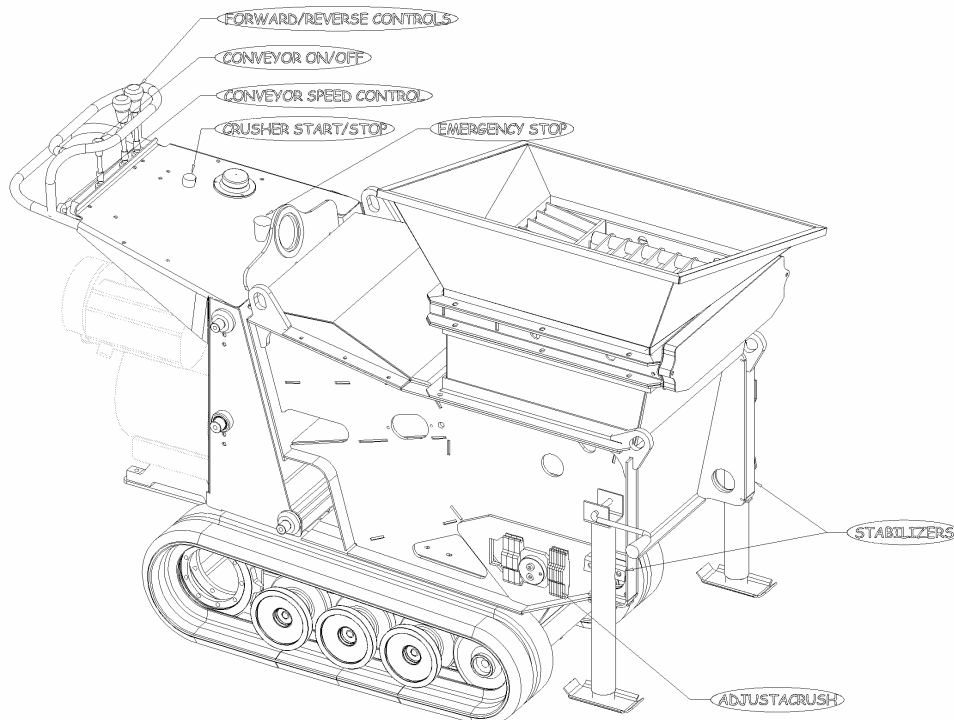
Decal Layout (fig 2)

3. Controls and Operating

Operating Control Diagram



View of the control panel (2003) (fig 3a)



View of the controls and adjustments (2003) (fig 3b)

Engine Accelerator

This is mounted on the left-hand side of handlebar assembly and is operated by the hand. Press the lever down as required to increase fuel flow to accelerate the engine.

Do not place engine under full load at full speed immediately after starting. Always allow the engine to fully circulate lubricant and warm up gradually before operating at full speed and full load. Operate the engine at top rated speed when maximum power is needed for maximum speed and load.

Steering Via Hydrostatic Drive

The steering is performed by:



- To steer the machine, apply differing pressure to the control levers.
- Apply equal pressure on both levers to the forward position will make the machine move forward in the desired direction at speed.
- The machine will turn only when more or less pressure is applied to either lever proportional to the lever movement

To operate in the opposite direction.

The Reverse procedure is performed by:



- Apply equal pressure on both levers to the reverse position will make the machine move backward in the desired direction at speed.
 - 2speed operation
 - The machine will stop and hold any position when the both levers are released (Dead-man Brake)
-

4. Operating

Operating

Pre-starting Inspection



- Before the engine is started ensure the machine is ready for operation
- The machine should be in a level position to permit accurate checking of fluid quantities in the engine and other components.
- Walk around the machine and carry out the Inspections and Components Checks described on the following pages.

Daily Component Checks

- Reference should be made to engine manufactures handbook.
- Engine - With engine off, check oil level. The level should be just over the last thread at filler Add oil if low. (See lubricant chart for correct oil).
- Inspect the engine air cleaner for any damage (replace immediately. Using an engine with a damaged air cleaner will seriously reduce engine life)

THESE INSTRUCTIONS MUST BE ADHERED TO IN ORDER TO ASSURE CONTINUANCE OF ENGINES WARRANTY.

- Carefully inspect tracks for cuts, or other damage, and correct spring preload.
- Inspect for any leaks whether fuel, engine oil or hydraulic oil.
- Check fuel level - Fuel tank should be filled at end of each shift.
- Check conveyor for damage, tension, and tracking.
- Check safety ring fence for correct tension and operation.
- Check sprung grizzler bars for damage and operation.

Engine Operation



Do not place engine under ***FULL LOAD*** at ***FULL SPEED IMMEDIATELY*** after starting. ***ALWAYS*** allow the engine to fully circulate lubricant and warm up gradually before operating at full speed and full load.

Operate engine at top rated speed when maximum power is needed for the load.

***NEVER IDLE THE ENGINE FOR MORE THAN 5 MINUTES AT A TIME.
SHUT IT OFF.***

If operated outside its normal operating range, shut engine down immediately and report to service or maintenance personnel.

WARNING

Never start the engine indoors unless proper exhaust ventilation is provided to remove deadly exhaust gases. Once the engine is running, move the machine outdoors as soon as possible. Exhaust gases are hazardous and can cause unconsciousness and death.

Operating the engine beyond high idle speed can cause severe engine damage. The engine speed must not exceed 3,600 rev/min under any circumstances. When descending a steep grade, use a combination of lever and engine speed.

Starting the Engine

1. Make sure that all levers are in the neutral position, and emergency stop button is pulled out and the key removed.
2. Insert switch key and turn clockwise to position '1' to switch on the ignition. (Run position)
3. If engine is cold turn to pre heat position '2' and hold for 20 seconds
4. Turn key further clockwise against spring pressure to position '3' to crank engine; release key as soon as engine starts firing.

NOTE:

**Never crank the engine for more than 15 seconds continuously.
Allow starter at least 30 seconds cooling time between cranking periods to avoid overheating.**

Starting the Engine with Jumper cables.

To access the battery you will be need to remove the cover plate over the crusher controls, remove the 6 bolts that secure it to the crusher body once this has been done you can remove the plate and locate the battery

WARNING CHARGING OF ODYSSEY BATTERIES

Check for polarity connections of the discharged battery.

Do not exceed 15 volts during charge. Excessive booster voltage and/or incorrect jumper cable connections will destroy working plates inside battery. Keep all sources of ignition away from batteries. Do not lean over batteries.

Do not allow the battery to become full discharged you may find that it can not be recover from this state rendering it unserviceable

Voltmeter Reading	State of charge
12.84 Volts	100%
12.50 Volts	75%
12.18 Volts	50%
11.88 Volts	25%



Do not jump start a vehicle by using arc welding equipment. Currents and voltages are dangerously high and cannot be sufficiently reduced to make the method safe.

NOTE:

Ensure machines are not touching each other. Use cables that are equal to cable size on the machine.

If jumper cables are used to start an engine, be sure to follow this procedure:

Connect one end of a jumper cable, usually coloured red, to the discharged battery '**POSITIVE**' (+) post.

Connect the other end of the same cable to the '**POSITIVE**' (+) post on the booster or charged battery.

Connect one end of the second cable, usually coloured black, to the '**NEGATIVE**' (-) post of the booster battery.

Connect the other end of the '**NEGATIVE**' (-) cable to machine frame for grounding so that if a spark occurs, it is away from battery fumes (explosive hydrogen).

Check for cause of failure on the dead battery.

Moving and Stopping



1. Make sure the area around the machine is clear of personnel and obstructions before moving off.
2. In the first few minutes of travel check carefully for the required controls for maximum operating safety.
Select the driving direction and the required engine speed.
3. Move levers to the required position; apply more engine acceleration until the required speed has been reached.
4. To engage higher tracking speed, press the red high speed button on the operators console whilst drive is engaged.
5. To stop the machine release the control levers slowly and release the accelerator as the machine slows until it stops.

6. Stopping the Engine



1. Cool a hot engine by operating the engine at 1,000 rev/min and then slowly decelerating it over a 5-minute period until the engine is idling. Let it idle for at least 2 minutes. **ALWAYS COOL A HOT ENGINE GRADUALLY BEFORE SHUTTING IT OFF.**
2. Turn ignition key switch off to shut off fuel and stop engine.

Parking



When parking the machine overnight, or for an extended period, the following procedure in addition to that given in ‘**Stopping the Engine**’ will help maintain it in good condition for subsequent use:

1. Fill the fuel tank completely before parking the machine overnight or for extended periods, to prevent condensation. If security kit is supplied, keep it locked
2. Always park on level ground where possible. If it must be parked on a slope, position machine at right angles to the slope and block tracks securely.
3. Remove key to a place of safety
4. Push in emergency stop button to isolate the machine, ensure key is removed to a place of safety.
5. We would also recommend tripping the ring fence safety interlock switches.
6. NB IT IS IMPORTANT THAT THIS EQUIPMENT CANNOT BE STARTED OR USED BY UNAUTHORISED AND UNTRAINED PERSONNEL.

WARNING

Check tracks, hoses, wiring, tubing and fittings for cuts, abrasion, fraying, or other damage or deterioration. Inspect for damage to the crusher, conveyor or chassis. Attach warning signs to the controls to alert others if lubricant has been drained, batteries removed etc.

Operating the Crusher

Always position the machine on a level firm surface for loading and leave the loading area clear.

Before starting the crusher ensure that the stabiliser legs have been lowered and adjusted. **The machine must be stable.**

During normal operation the crushing cycle can be started and stopped by pressing the Green Crusher Jaw push button on the Control Panel (*see fig 3b*).

Note: On cycle start the crusher jaw will always retract to its fully open position, even if the Emergency Stop has been actuated.

Operating the Conveyor

The conveyor is operated by moving the control lever forward for normal operation, moving the control lever right back will reverse the conveyor.

Conveyor speed can be controlled by adjusting the Speed Controller.

Adjustacrush©

To alter crushed material size remove top retaining pin, move packing plate(s) to either increase or decrease jaw gap.

Both sides must be released together.

Operate machine to move jaw.

Reinsert packing plate and reinstall retaining pin.

Note: The red packing plates must never be removed or moved.

Charging/Loading

The most common methods of loading this type of machine is with hydraulic excavators, or by hand, this unit has been designed to be loaded mainly from one side, however it can be loaded from either side. Ideally, excavators should require 90° or less swing.

Do not load with machines that are over large and would allow material and fill to fall from the bucket missing the hopper. This can be dangerous to both operator and the unit.

Only load material that the machine is capable of crushing, avoid reinforced concrete and large volumes of bitumous materials.

When tracking the machine pay attention to site conditions to avoid rocks, holes, or other obstacles.

Such obstacles present hazards to safe operation, but also can needlessly damage tracks.

	Loose Density <i>kg/m³</i>	<i>Ib/yd³</i>	Fill Factor %
Snow (Fresh)	200	337	100
Peat (Dry);	400	674	100
Sugar beet	530	894	100
Coke (Loose)	570	961	85
Barley	600	1012	85
Petroleum Coke	680	1146	85
Wheat	730	1231	85
Coal Bituminous	765	1290	100
Fertilizer (Mixed)	1030	1737	85
Coal Anthracite	1046	1764	100
Earth (Dry)(Loose)	1150	1939	100
Nitrate Fertilizer	1250	2180	85
Sodium Chloride (Dry)(Salt)	1300	2192	85
Cement Portland	1440	2428	100
Limestone (Crushed)	1530	2580	100
Sand (Dry)	1550	2613	100
Asphalt	1600	2698	100
Gravel (Dry)	1650	2782	85
Clay (Wet)	1680	2832	110
Sand (Wet)	1890	3187	110
Fire Clay	2080	3507	100
Ready Mixed Concrete	2194	3698	85
Copper (Concentrate)	2300	3878	85
Slate	2800	4721	100
Magnetite	3204	5402	100

Specific Gravity (fig 4)

5. Lubrication and Servicing

SAFETY PRECAUTIONS

Do not allow unauthorised personnel to service or maintain this machine. Study the Operator's Handbook and Service Manual before starting, operating or servicing this machine. Always follow procedures and safety precautions detailed in this manual.

Do not work under or near an unblocked or unsupported machine.

Do not work under or near any unblocked or unsupported linkage, or any part of machine.

Always shut down machine according to the procedure described under 'Stopping The Engine' before cleaning, lubricating or servicing the machine

Always relieve pressure before servicing any pressurisation system.

Always attach a '**DO NOT OPERATE**' or similar warning sign to ignition switch or a control before cleaning or servicing the machine.

LUBRICATION AND SERVICING

Lubrication is an essential part of preventive maintenance. It is important that the instructions regarding types of lubricants and the frequency of their application be followed to prolong the useful life of the machine. Periodic lubrications of moving parts reduce to a minimum the possibility of mechanical failures.

Thoroughly clean all fittings, caps, plugs etc., to prevent dirt from entering the system while servicing.

Lubricants must be at operating temperatures when draining.

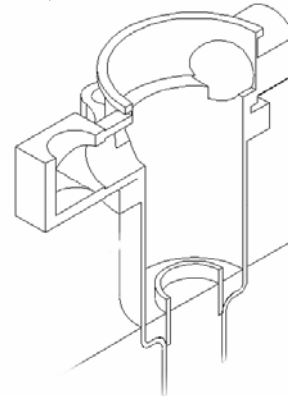
Do not operate any system unless oil level is within the operating range as indicated on the dipstick, or level plug.

All change and service periods are recommendations based on average operating conditions. Lubricants showing evidence of excessive heat, oxidation or dirt should be changed more frequently to prevent these conditions. Lubricants change and service periods must be established on the basis of individual job conditions.

Miscellaneous Servicing Information

When required:

- Hydraulic Tank - Cold Oil Level –
- Hydraulic oil dipstick is not used to checked oil it is there to allow the air in the tank to be displaced when filling.
- To add oil, remove red top of filter, pull out filter, and remove dipstick, if low fill through the filter housing until the level is 100mm below the tube in the base of the filter housing. (DO NOT OVER FILL)

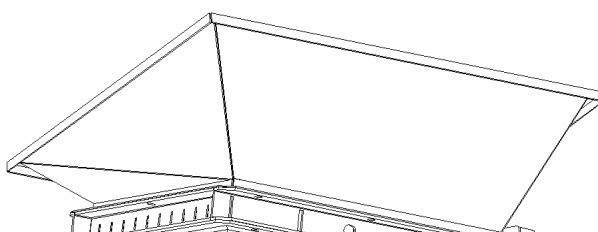


Recommended Lubricants

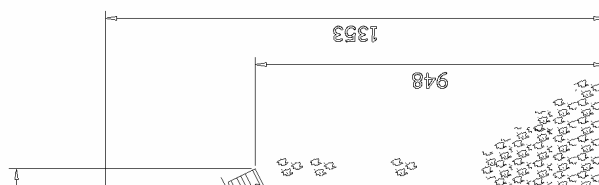
Note: **Do not mix Lubricants**

Item No	Component	Lubricant	Specifications	API Code	SAE Grade
1	Engine Crankcase and Filter	Engine Oil with 1.85% max. Sulphated ash limit		CC/CD	10W-30
2	Hydraulic System	Hydraulic oil	HV 36 or Bio-Degradable Liquimatic BVG 36/Plantosyn 36 HVI	6743-4D	36CS
3	Fuel tank	Diesel Fuel Oil with max. Sulphur 0.5%	A.S.T.M. No.2 Diesel Fuel (at sub zero temp. blend No. 2 with No.1		
4	Grease Nipples	Extreme Pressure Lithium (No 'Moly')	Stern Tube Grease C/W Extreme Pressure Capabilities		No. 2 Consistency

Lubrication Chart (fig 5)



Lubrication Layout (fig 6)



“Basic Overall Dimensions”
(fig 7)

General Specification
37

Hi-C40		Diesel
Weight	Kg (lbs)	800 (1760)
Width Over Loading Hopper	mm (ins)	700 (28)
Total Height Hopper	mm (ins)	1350 (53)
Length	mm (ins)	1800 (70)
Length with Conveyor	mm (ins)	3300 (130)
Charging Height	mm (ins)	1154 (45)
Inlet Size	mm (ins)	400x400 (16x16)
Adjustable Jaw Gap	mm (ins)	20-70 (0.75-2.75)
Conveyor Width	mm (ins)	400 (16)
Safety Interlocks (With Engine Shutdown)	Quantity	2
Max Gradeability	%	35
Turning Circle (Without Conveyor Fitted)	mm (ins)	2000 (78.5)
Track Ground Pressure	Kg/cm ² (PSI)	0.351 (4.99)
Engine (Kubota OC95 with Electric Start)	kW (HP)	7.1 (9.5)
Slow Speed Forward	Kph (Mph)	0.75 (0.46)
High Speed Forward	Kph (Mph)	4 (2.5)
Slow Speed Reverse	Kph (Mph)	0.75 (0.46)
High Speed Reverse	Kph (Mph)	4 (2.5)
Noise Level	Lwa	101

General Specification (fig 8)

Miscellaneous Bolt & Nut Torque Specification

Friction coefficient total 0.14 for screws and nuts without after treatment as well as for phosphate nuts.

Tighten by hand.

If nothing special is indicated select correct torque limits from the following tabulations:

Metric ISO Thread DIN 13								
Size	6.9 Some Engine Bolts		8.8 Standard Hex Bolt		10.9 Some Engine Bolt		12.9 Standard Cap head	
	Nm	(lbfft)	Nm	(lbfft)	Nm	(lbfft)	Nm	(lbfft)
M6	8.5	(6.3)	10	(7.4)	14	(10.3)	17	(12.5)
M8	21	(15.5)	25	(18.4)	35	(25.8)	41	(30.2)
M10	41	(30.2)	49	(36.1)	69	(50.9)	83	(61.2)
M12	72	(53.1)	86	(63.4)	120	(88.5)	145	(106.9)
M14	115	(85)	135	(100)	190	(140)	230	(170)
M16	180	(133)	210	(155)	295	(218)	355	(262)
M18	245	(181)	290	(214)	400	(295)	485	(358)
M20	345	(255)	410	(302)	580	(428)	690	(509)
M22	465	(343)	550	(406)	780	(575)	930	(686)
M24	600	(443)	710	(524)	1000	(738)	1200	(885)
M27	890	(656)	1050	(774)	1500	(1106)	1800	(1328)
M30	1200	(885)	1450	(1070)	2000	(1475)	2400	(1770)

Torque Settings (fig 9)

Every 10 hours of operation (Daily)

Walk Around Inspection

Engine:

- Visually check engine for damage, loose bolts and listen for any unusual noises.
- Engine Air Cleaner:
 - Inspect and remove any obstructions from the air cleaner inlet with the engine stopped.
 - Check Engine Crankcase oil level and add oil if low (see Lubrication Charts). With the engine off, the oil should be just over the last thread at filler, do not overfill.
 - Lubrication (greasing) periodic lubrications of moving parts will help reduce to a minimum the possibility of mechanical failures (see Lubrication Charts).

NOTE:

- **Service air cleaners more often when operating under extremely dusty conditions.**
- **Do not wash the air cleaner element out with detergent replace with new**

After first 50 hours of operating new or rebuilt components

- Replace the hydraulic oil filter install new element each time do not reuse.
- Remove dipstick & filter element, oil should be visible 100mm below the tube in the base of the filter housing.
- If oil low fill through the filter housing until the level is 100mm below the tube in the base of the filter housing. (DO NOT OVER FILL)
- Check Engine crankcase, drain oil replace as per lubrication chart check oil level the oil should be just over the last thread at filler, do not overfill.
- Lubrication (greasing) Periodic lubrications of moving parts will help reduce to a minimum the possibility of mechanical failures.

Every 100 hours or operation (Monthly)

- Engine crankcase drain oil replace as per lubrication chart check oil level the oil should be just over the last thread at filler
- Lubrication (greasing): -periodic lubrications of moving parts reduce to a minimum the possibility of mechanical failures.
- General inspection check entire unit for leaks loose bolts and nuts or damaged parts. Examine the body, particularly the chassis, for cracks or broken welds. Repair where necessary.
- Engine air intake. Check air intake system for wear or damage to piping, loose clamps and leaks.

- Drain fuel remove filter screen replace the assemble install new filter screen and refill tank. If contaminated fuel is suspected frequency may need to be increased.

Every 300 hours of operation

- Drain fuel and replace fuel filter.
- Lubrication (greasing): -Periodic lubrications of moving parts reduces to a minimum the possibility of mechanical failures.

Every 1,000 hours of operation (6 Months)

- Lubrication (greasing): -Periodic lubrications of moving parts reduces to a minimum the possibility of mechanical failures.
- Replace hydraulic oil filter install new element each time do not reuse.

Every 2,000 hours of operation (Annually)

- Lubrication (greasing):- Periodic lubrications of moving parts reduces to a minimum, the possibility of mechanical failures.
- Hydraulic Oil Tank:-Drain oil, remove and clean filter screen assemblies. Reinstall filter screens and refill tank.
- Hydraulic Oil Filter Clean filter housing and install new element after a year or 2,000 hours of operation whichever comes first.

All information contained in the 'Lubrication and Service Chart' is extracted from the relevant manufactures Operators Manual and was correct at time of publication. User should ensure that information contained in this chart, regarding engines and hydraulics, reflect the information shown in the relevant manufacturers Operators Manuals, supplied with the machine. Maintenance procedures should be carried out in conjunction with any additional procedures contained in the relevant manufacturers 'Operation and Maintenance Manual', at the intervals specified.

Lubrication and Miscellaneous Servicing

Small circles on the illustration represent points at which lubrication or servicing must take place, at the intervals indicated on the left-hand side of the lubrication chart.

Note 1. The use of low viscosity oils, such as 10W or 10W - 30, can be used to aid in starting the engine and providing sufficient oil flow at ambient temperatures below -5°C (23°F). Continuous use of low viscosity oils can decrease engine life due to wear.

Note 2. Operation below the minimum temperatures listed for the oil used without proper preheats or warm-up results in greatly reduced life. Proper warm-up requires 20 minutes minimum (with engine at part throttle) before operating.

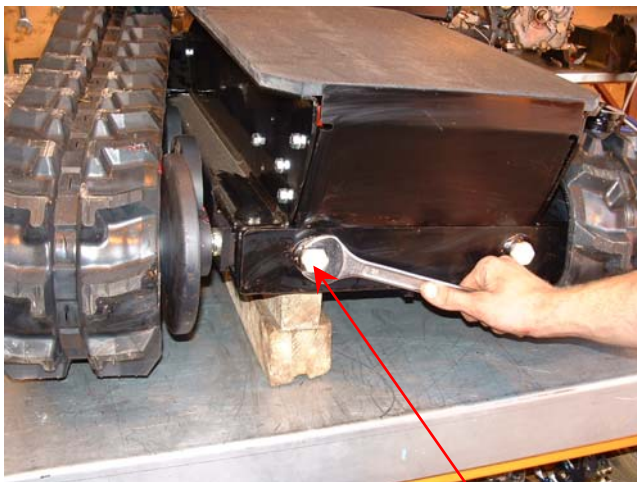
Note 3. Hydraulic Oil meeting specification is the only oil suitable for use in this hydraulic system.

Replacement of Rubber Drive Track

In the event that the drive Track being displaced during operation follow the procedure listed below.

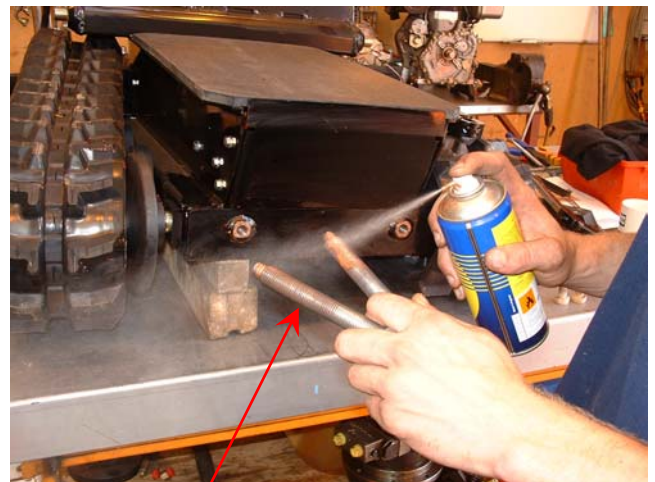


Typical view of displaced track



Remove blanking plugs

Support lower chassis along its length



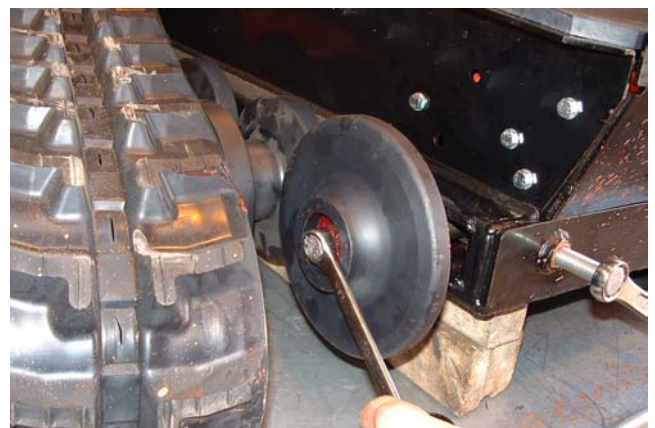
lubricate jacking bolts (supplied)



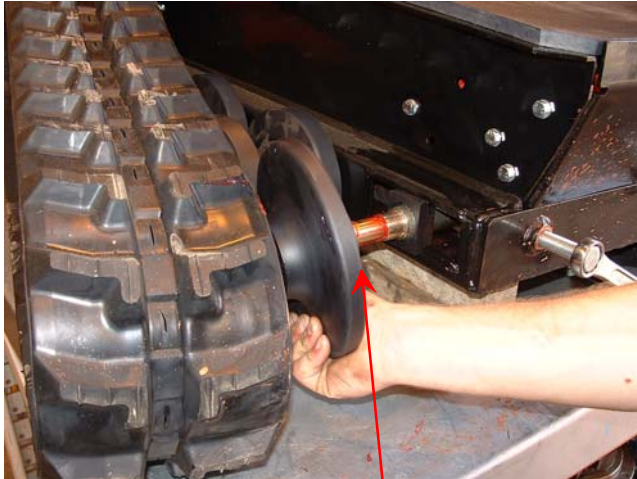
Insert jacking bolts adjust equally



Adjust until idler is in line with roller



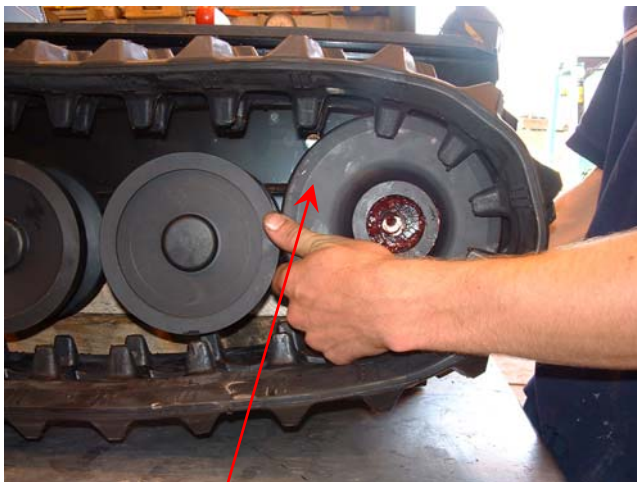
Remove blanking plug



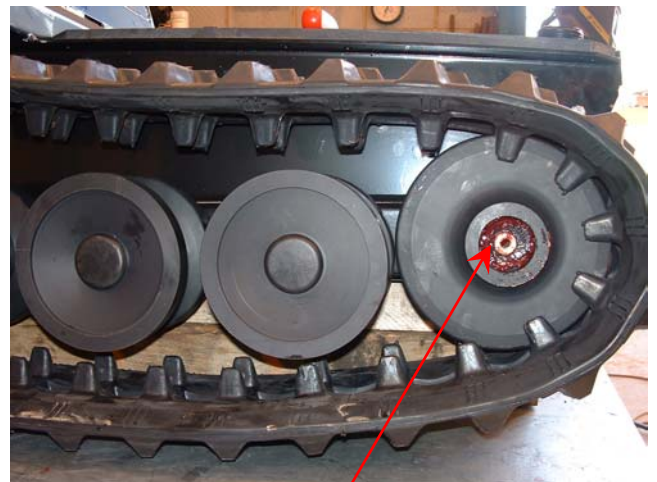
Remove securing bolt



Remove Idler



Place Idler in drive track



Slide drive track and Idler on shaft

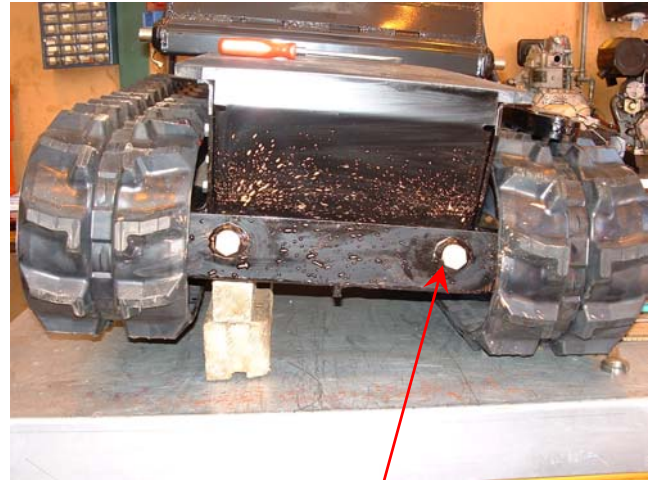
Insure Idler is fully home



Install securing bolt (torque 49Nm)



Replace blanking plug

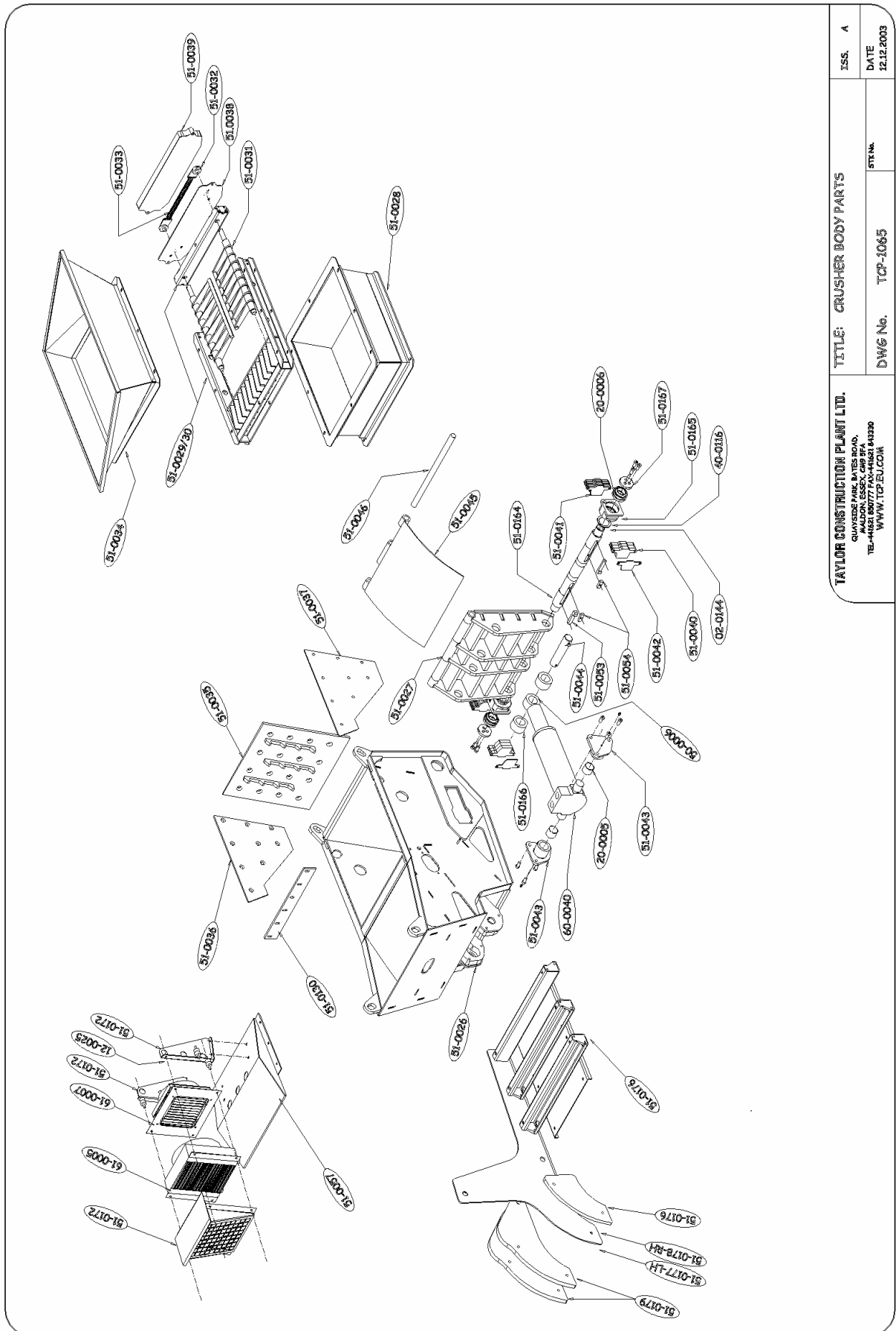


Remove jacking bolts

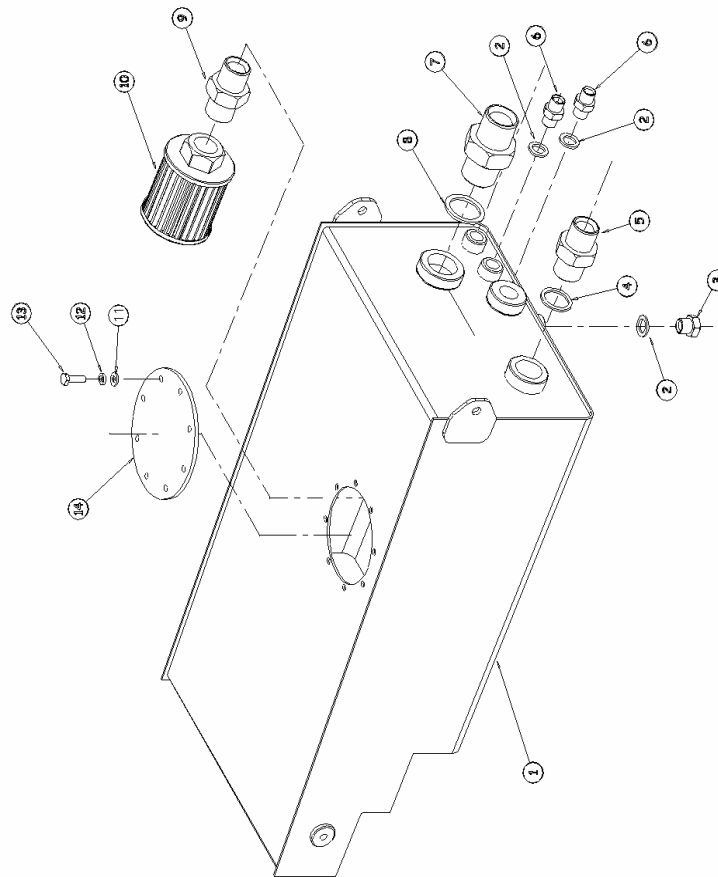
Replace blanking plugs



Remove any blocking under chassis run and test.



TITLE: CRUSHER BODY PARTS		ISS. A
DWG No. TCP-1065		DATE 12.12.2003
TAYLOR CONSTRUCTION PLANT LTD. CHAUSSÉE PARK, HATES ROAD, MADON, ESSEX, SS9 5PA TEL: +44(0)180777 FAX: +44(0)180777 WWW.TCP.EU.COM		RTM.



13	01-0002	SET BOLT M6 X 20	8
12	02-0003	M6 SPRING WASHER	8
11	02-0004	M6 FALT WASHER	8
10	63-0005	SUCTION FILTER	1
9	62-0013	3/4" - 3/4" MALE MALE	1
8	62-0062	3/4" BONDED WASHER	1
7	62-0033	1" - 1" MALE MALE	1
6	62-0001	1/4" - 1/4" MALE MALE	2
5	62-0013	3/4" - 3/4" MALE MALE	1
4	62-0014	3/4" BONDED WASHER	1
3	62-0004	DRAIN PLUG	1
2	62-0002	1/4" BONDED WASHER	3
1	50-0001	TANK BARE	1
ITEM NO:	PART NO:	DESCRIPTION:	QTY:
TAYLOR CONSTRUCTION PLANT LTD.		TITLE: HI C40 TRACK CARRIER OIL TANK	ISS. 4
QUAYSIDE PARK, BYTES ROAD, WILMINGTON, WYOMING 82390 TEL: 406.21.80777 FAX: 406.21.81330 WWW.TOP.EU.COM		DWG No. TCP-1441	DATE
		ITEM:	

ITEM NO:	PART NO:	DESCRIPTION:	QTY:
24	03-0001	END CAP	1
23	01-0010	M10 X 25 BOLT	8
22	02-0008	M10 SPRING WASHER	1
21	02-0007	M10 LARGE FLAT WASHER	2
20	51-0015	LOWER ROLLERS	2
19	01-0011	SOCKET HEAD SCREW	10
18	20-0004	DRIVE SPROCKET	4
17	60-0019	DRIVE MOTOR	6
16	60-0006	HYDRAULIC PUMP (STATE cc)	1
15	60-0005	PUMP HOUSING	1
14	51-0019	PUMP ADAPTOR	1
13	12-0002	KUBOTA	1
12	51-0010	FUEL NECK (STATE ENGINE)	1
11	62-0028	FUEL HOSE	1
10	03-0003	HOSE CLIP	2
9	60-0003	VALVE BLOCK CRUSHER	1
8	51-0007	FUEL CAP	1
7	51-0006	FUEL FILLER	1
6	01-0016	M5 X 20 CAP HEAD	3
5	02-0011	M8 FLAT WASHER	32
4	01-0005	M8 X 20 SET BOLT	18
3	51-0005	LIFTING EYE	1
2	51-0004	GRAB BAR	1
1	50-0005	FULL CHASSIS ASSY	1

ISS.	DATE
A	29/07/05

TITLE:	DWG No.
HI-CO CHASSIS PARTS SHEET 1 OF 2	TCP-1442

ITEM NO:	DESCRIPTION:
TAYLOR CONSTRUCTION PLANT LTD. QUAYSIDE PARK, BATES ROAD, MALDON, ESSEX, CB9 7FA. TEL: 01465 777211 FAX: 01465 843280 WWW.TCP-UK.CO.UK	

The diagram is an exploded view of a chassis assembly. It shows various components such as the main chassis frame (1), fuel tank (27), drive motor (17), hydraulic pump (16), and various rollers (20). The parts are numbered from 1 to 40, corresponding to the parts list. The diagram illustrates the assembly sequence and the relative positions of the components.

The diagram is an exploded view of the HC40 chassis assembly. It shows the main chassis frame (1) with various components attached or nearby. Key parts include:

- Fuel System:** Fuel strainer (1), fuel line (2), fuel filter (3), fuel pump (4), fuel tank (5), fuel nozzle (6), fuel hose (7), fuel inlet (8), fuel outlet (9).
- Electrical System:** Battery (10), battery terminals (11), battery holder (12).
- Chassis Frame:** Main chassis (1), side rails (2, 3), front axle (33), rear axle (34), front guide (32), rear guide (31).
- Track System:** Rubber track (27), track rollers (18, 19, 20, 21, 22), track tensioner (23), track idler (24), track guide (25).
- Mechanical Components:** Plug (36), cir clip (35), slide (34), front axle (33), guide (32), nylon bolts (31, 30), die springs (29, 28), rubber track (27), seal (26), glass-filled front idler (25).

ITEM NO.	PART NO.	DESCRIPTION	QTY.
42	12-0003	FUEL STRAINER	1
41	71-00	BATTERY	1
40	01-0007	M8 NYLOC	2
39	01-0005	M8 X 20 SET BOLT	18
38	02-0011	M8 FLAT WASHER	10
37	51-0017	BUMPER	1
36	03-0002	PLUG	2
35	02-0010	CIR CLIP DIN 471	2
34	51-0012	SLIDE	2
33	51-0022	FRONT AXLE	1
32	51-0013	GUIDE	2
31	01-0007	M8 NYLOC	2
30	01-0012	M8 X 30 SET BOLT	2
29	40-0001	DIE SPRING	2
28	40-00	SPRING	2
27	22-0001	RUBBER TRACK	2
26	20-0003	SEAL	10
25	51-0068	GLASS FILLED FRONT IDLER	2

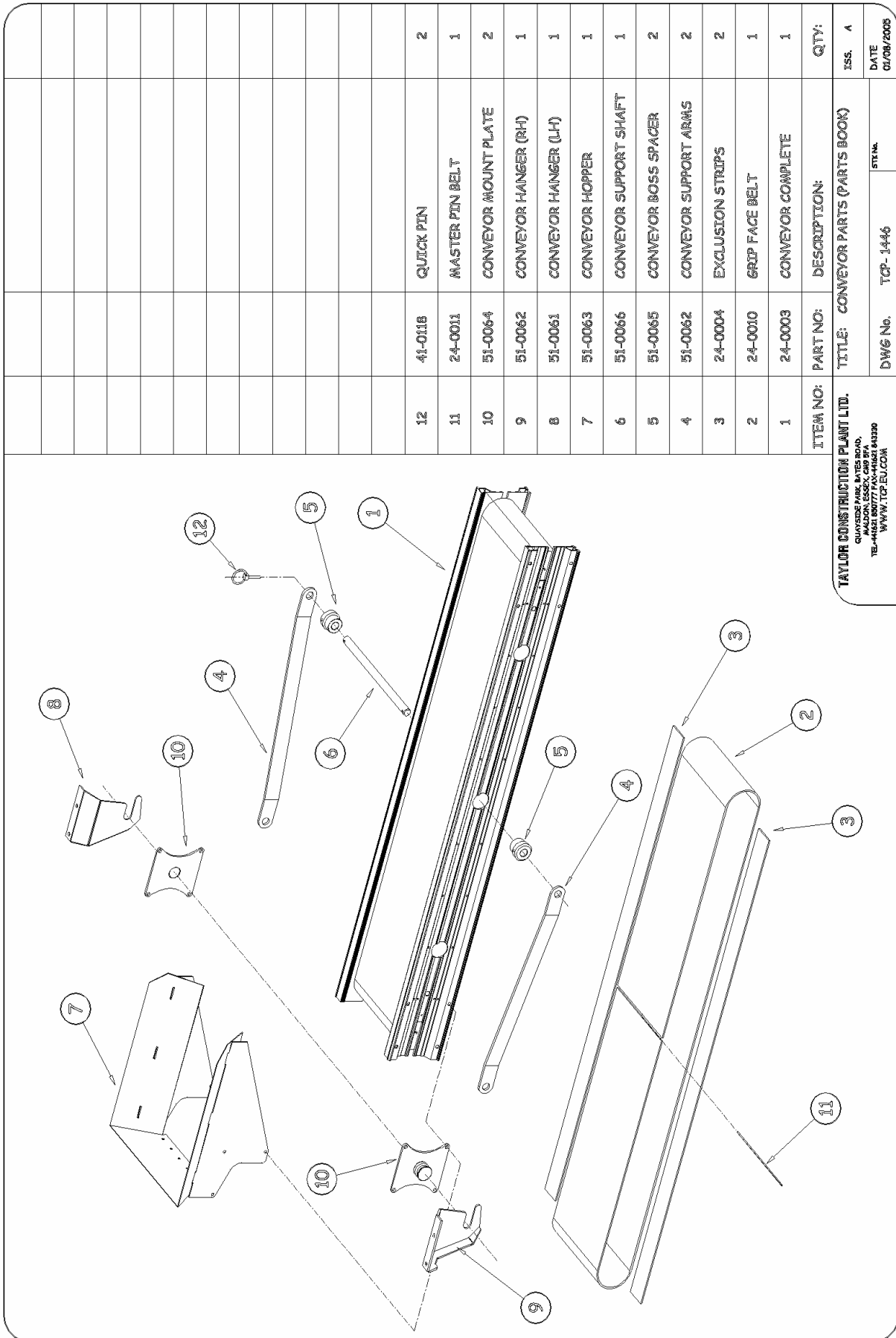
TITLE	DWG No.	TCP- 1442	ISS.	DATE
HC40 CHASSIS PARTS SHEET 2 OF 2			A	29/07/05

TAYLOR CONSTRUCTION PLANT LTD.
 QUAYSIDE PARK, BATES ROAD,
 MALDON, ESSEX, CM9 3FA
 TEL: 0465 777111 FAX: 0465 443290
 WWW.TCP.CO.UK

ITEM NO:	PART NO:	DESCRIPTION:	QTY:
10	72-0009	CABLE SAFETY SWITCH	20
9	72-0013	THIMBLE SAFETY CLIP	6
8	72-0012	CABLE CLIP SAFETY CABLE	8
7	72-0011	TENSIONER SAFETY SWITCH	1
6	72-0008	SAFETY SWITCH (LH)	1
5	72-0007	SAFETY SWITCH (RH)	1
4	51-0059	SAFETY BAR (RH FRONT)	1
3	51-0059	SAFETY BAR (LH FRONT)	1
2	51-0058	SAFETY BAR (RH REAR)	1
1	51-0068	SAFETY BAR (LH REAR)	1

TAYLOR CONSTRUCTION PLANT LTD.
QUAYSIDE PARK, BATES ROAD,
MILDON, ESSEX, CH8 9FA
TEL: +44 (0)1777 563831
WWW.TCP.EU.COM

TITLE: HI-C40 SAFETY PARTS
 DWG No. TCP-1443
 ISS. A
 DATE 29/07/05



12	41-0118	QUICK PIN	2
11	24-0011	MASTER PIN BELT	1
10	51-0064	CONVEYOR MOUNT PLATE	2
9	51-0062	CONVEYOR HANGER (RH)	1
8	51-0061	CONVEYOR HANGER (LH)	1
7	51-0063	CONVEYOR HOPPER	1
6	51-0066	CONVEYOR SUPPORT SHAFT	1
5	51-0065	CONVEYOR BOSS SPACER	2
4	51-0062	CONVEYOR SUPPORT ARMS	2
3	24-0004	EXCLUSION STRIPS	2
2	24-0010	GRIP FACE BELT	1
1	24-0003	CONVEYOR COMPLETE	1

ITEM NO:	PART NO:	DESCRIPTION:	QTY:
TITLE: CONVEYOR PARTS (PARTS BOOK)			
DWG No.	TCP-1446	STW:	ISS. 4
			DATE 01/08/2005

TAYLOR CONSTRUCTION PLANT LTD.
QUAYSIDE PARK, BATES ROAD,
MALDON, ESSEX, CM9 7PA
TEL: 0464 807777 FAX: 0464 80320
WWW.TCP-UK.COM

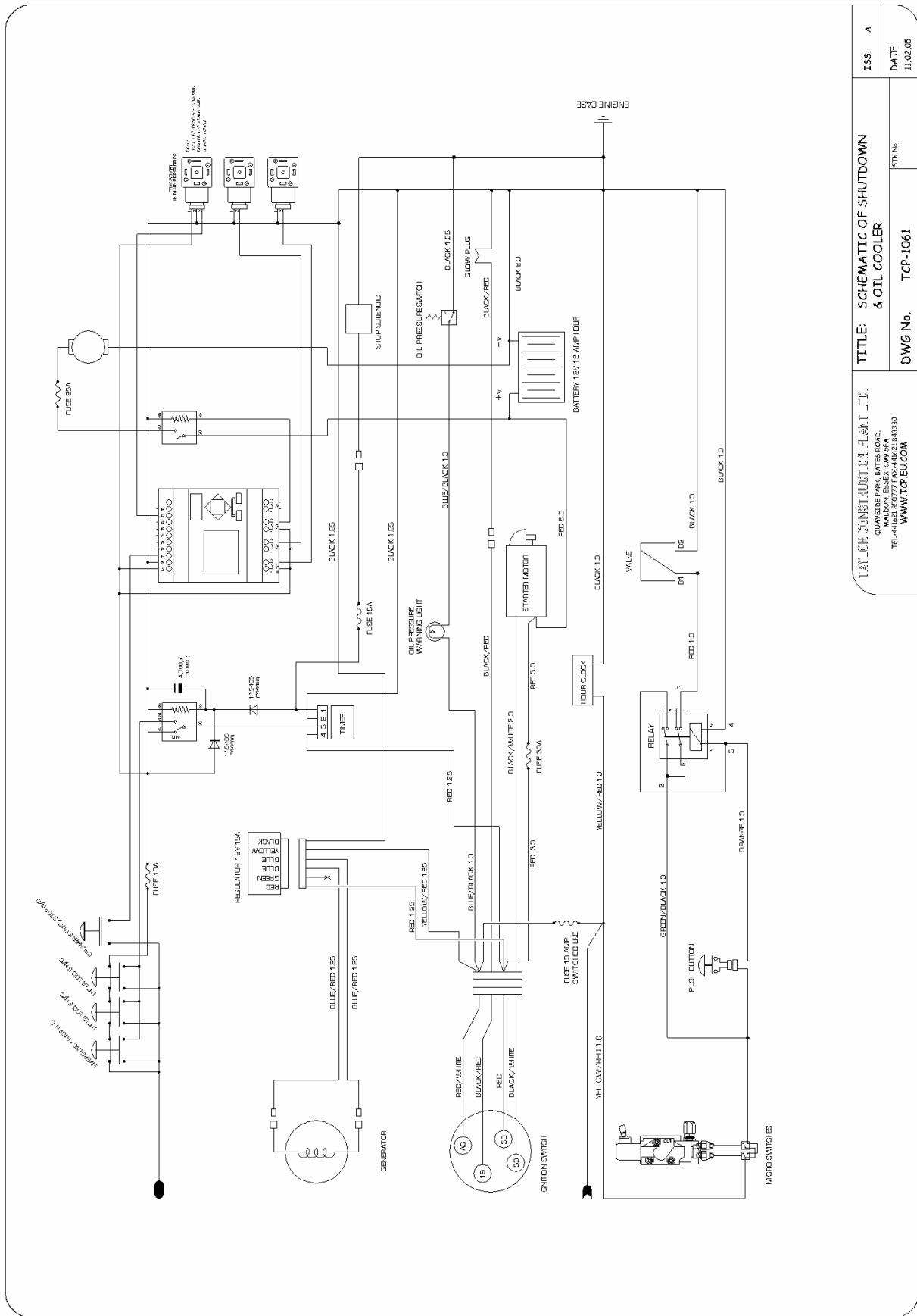
74-0001	LOGO! PLC	1
73-0004	BATTERY LEADS (PAIR)	1
73-0003	WIRING LOOM (TWO SPEED)	1
73-0002	WIRING LOOM (KUBOTA)	1
60-0039	HYDRAULIC DRIVE MOTOROLLER	1
73-0007	WIRING CRUSHER	1
72-0029	PRESSURE TRANSMITTER	1
72-0019	N/O CONTACT BLOCK	2
72-0018	N/C CONTACT BLOCK	1
72-0015	GRENN PUSH BUTTON	1
72-0014	EMERGENCY STOP SWITCH	1
80-0017	DECAL WARNING CONVEYOR	4
80-0016	DECAL HI-LOW CONTROL PANEL	1
80-0019	DECAL EMERGENCY STOP	1
80-0018	DECAL ADJUSTACRUCH	2
60-0041	CONTROL VALVE	1
51-0132	BATTERY CLAMP	2
PART NO:	DESCRIPTION:	QTY:

TRAFALGAR CONSULTING ENGINEERS LTD.
QUAYSIDE PARK BRISTOL ROAD,
LEAVALLEY, ESSAY, CO. DURHAM
TELEPHONE: 0191 253 4000
WWW.TOP.EU.COM

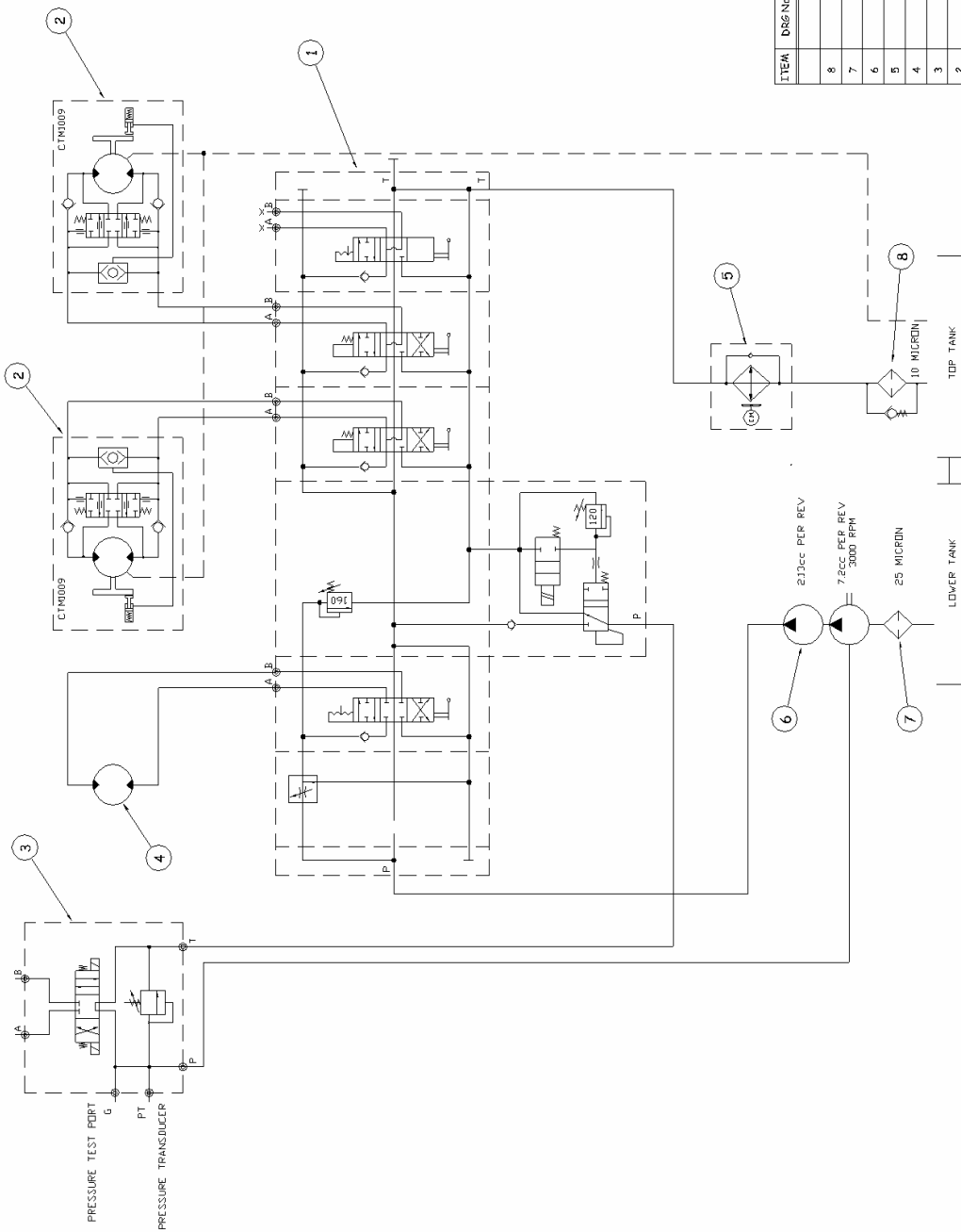
TITLE: HI C40 MISCELLANEOUS PARTS
DWG No. 1447

STX No.

ISS. A
DATE 02/08/2005



TITLE: SCHEMATIC OF SHUTDOWN & OIL COOLER		ISS: A
DWG No. TCP-1061		DATE 11.02.05
VAL-CON CONSULTANTS PVT. LTD. QUAYSIDE PARK, BATES ROAD, MALDON, ESSEX, CM9 3FA TEL: 44 (0)1473 802318/330 WWW.TCP.EU.COM		STN. No.



ITEM	DRG No.	PART No.	DESCRIPTION	QTY
8		63-0001	RETURN FILTER - 10 MICRON	1
7		63-0005	SUCTION FILTER - 25 MICRON	1
6		60-0042	HYDRAULIC PUMP	1
5		61-0005	OIL COOLER	1
4		60-0039	CRUSHER MOTOR	1
3		60-0041	CRUSHER CONTROL VALVE	1
2		60-0019	TRACK MOTOR	2
1		60-0046	MAIN CONTROL VALVE	1

TCP EUROPEAN HYDRAULIC PLANTS LTD.
CRUSHER PARK, BATES CO. CO.
MILTON, ESSEX, SSG 5FA
TEL: +44 (0) 1897 777 FAX: +44 (0) 843 330
WWW.TCP.EU.COM

TITLE: SCHEMATIC CRUSHER HYDRAULICS
MK4 CRUSHER
DWG No. TCP-1062
ISS. A
DATE 21.03.05

NOTES: