COVEYA

WE KEEP YOU MOVING

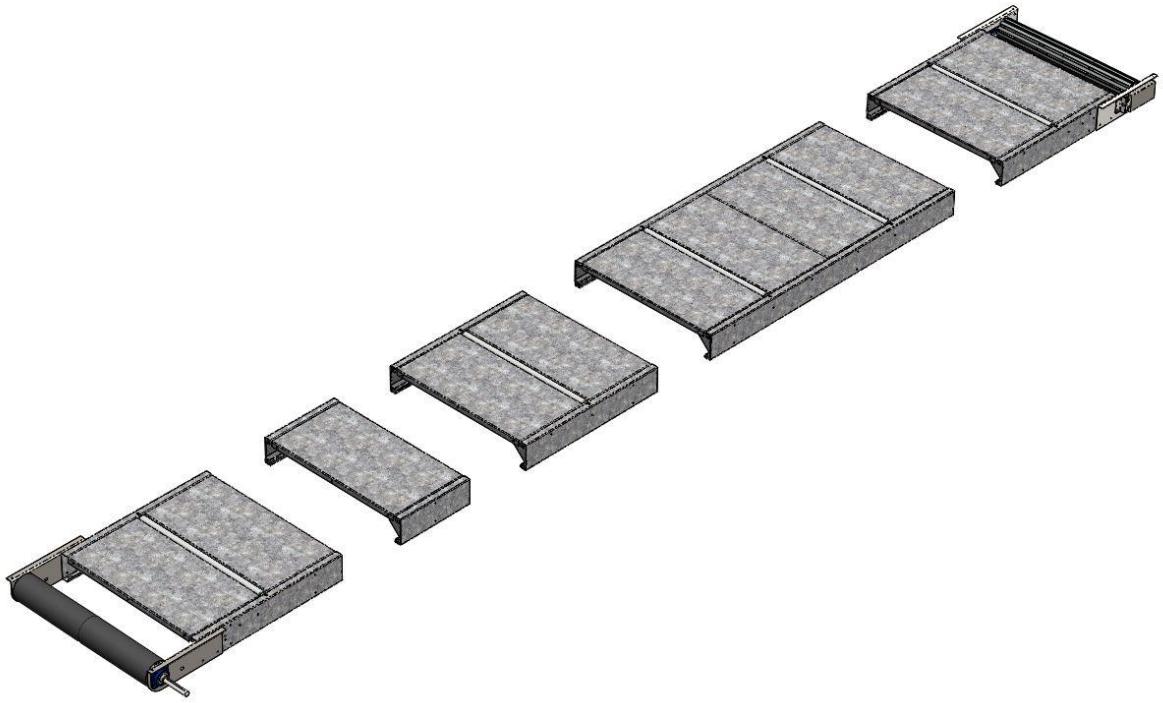
IMPORTANT INSTRUCTIONS FOR OPERATION AND MAINTENANCE OF

EASIKIT

FLAT BED CONVEYOR

EASIKIT

FLAT BED CONVEYOR



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OPERATING INSTRUCTIONS

WARNING!
ISOLATE AND LOCK-OFF SUPPLY BEFORE INSPECTION

- If you cannot lock off the power supply, unplug the conveyor from the starter or main power supply or transformer.
- Visually inspect all external electrical connections.
- Check for materials jammed between the belt and conveyor structure.
- Check for material build up on any of the rollers or side guides.
- Ensure area under and adjacent to, the loading/tail section is clear of debris.
- Check external belt scraper for tension (if fitted).
- Inspect belt & clip joints for damage and wear, also check the tension of the belt, if you find any damage to the belt or joints, inform our service department immediately so it can be dealt with ASAP to avoid unnecessary & expensive damage.
- If the conveyor is on stands or scaffolding, check the tightness of all bolts or scaffold clips. Clear out any debris or build-up of material from the back and underside of the tail section.
- If the conveyor is on moveable castors, ensure that wheel brakes are locked on before conveyor is started.
- Inspect the condition of the hopper rubber skirts (if fitted).
- Check E-stops are operating (if fitted).
- Check head guard is fitted securely (if applicable).
- Visually check on all nuts and bolts on rollers and feed hoppers.

ANY DEFECTS SHOULD BE REPORTED IMMEDIATELY

Start-up procedure

- Switch on electrical supply (Either by switching on the transformer or by plugging in the power lead).
- Give audible warning and check the discharge area of the conveyor before turning on the conveyor.
- Press the green start button.
- Observe the operation and tracking of the belt.
  (For adjusting points, see diagrams on page 5).
- Load conveyor steadily and commence operations.

REMEMBER!

YOU ARE FEEDING A MOVING BELT, SO FEED ACCORDINGLY AND THE CONVEYOR WILL WORK VERY WELL.
OVERLOAD AND YOU WILL CAUSE BREAKDOWNS WHICH IN TURN WILL COST YOU MONEY.

Loading

- Conveyor only to be loaded at the feed hopper or at designated loading points.
- Loading only to commence once the conveyor has been started.
- Feed hoppers to be fed evenly and steadily.
- When loading steeper conveyors some rollback will incur. Care must be taken to ensure injury cannot be caused to the operator/loader by large items coming off the end of the conveyor.

OVERLOADING WILL INEVITABLY CAUSE JAMMING AND BREAKDOWNS, THEREFORE CAUSING DOWNTIME ON SITE.

Shut down procedure

- Ensure belt is emptied, except in emergency stop conditions.
- Press the stop button
- Then switch off the power at the control isolator switch on main power supply.

GENERAL MAINTENANCE

For more detailed Routine maintenance see Pages 9 – 20

Keep the conveyor clean, particularly under and around the loading section.

Belt

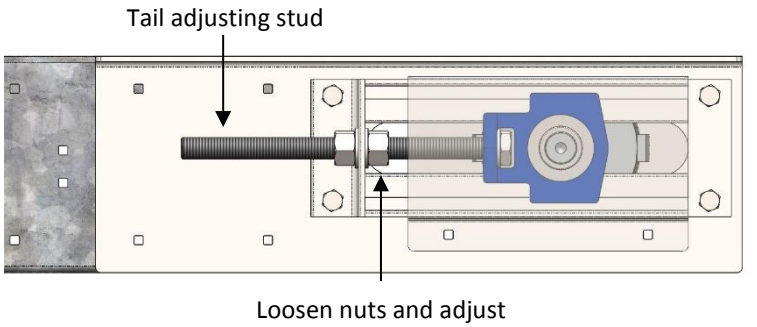
- Check belt tension and adjust if necessary by evenly tightening adjusting nuts situated either side of the conveyor tail section. (See details below)
- The correct tension is the minimum required to maintain drive to the belt.

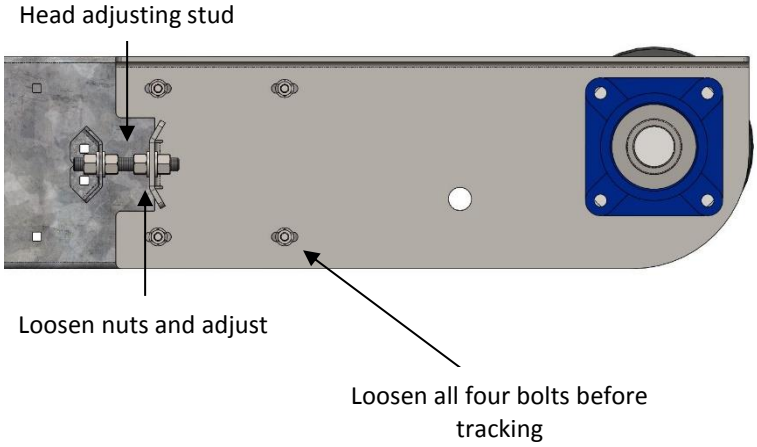
OVER TENSIONING WILL CAUSE BREAKDOWNS THEREFORE DOWNTIME!

Gearbox

- Lubricated for life; check oil seals on output shaft for leaks.
- If the gearbox starts leaking please contact our service department immediately.

TENSIONING &TRACKING POINTS





TROUBLE SHOOTING

Belt tracking over to one side at the tail section

STOP the conveyor and ISOLATE POWER SUPPLY. Remove the feed hopper, release the tension off of the belt and ensure there is no build up around the tail drum or any stones trapped between the drum and framework, then test to ensure the drum runs freely. Also carry out visual check on bearing condition (any play or noise) and if you find there is a problem contact your supplier who will arrange for a service visit. If no problem is found, tension the belt and connect the power and switch on, whilst the belt is running check the tracking and adjust as necessary to centralise the belt on the drum (see Fig 2 on page 8), switch off and refit the feed hopper.

Belt tracks over at the head section

STOP the conveyor and ISOLATE POWER SUPPLY. Check the head unit for any build up around the head drum or rollers and clear if found. Loosen the four locating bolts (see diagrams on page 5, do not completely undo the nuts) and make the necessary adjustments to centralise the belt (see Fig 1 on page 8), start the conveyor and check the position of the belt and make any final adjustments, retighten the four locating bolts and lock off the adjusting stud.

Drive operating but the belt is stationary

ISOLATE POWER SUPPLY. Check moving parts are free from obstruction.
Tension the belt by adjusting the tension bolts evenly on the tail section.
(See diagrams on Page 5)
Restore the power and institute the start-up, check belt tracking and adjust as necessary.

Motor cuts out

ISOLATE POWER SUPPLY. Check that nothing has jammed any moving parts, particularly behind loading back guard. Contact your conveyor supplier immediately.

UNDER NO CURCUMSTANCE SHOULD YOU REPEATEDLY TRY TO START THE CONVEYOR, AS THIS WILL CAUSE SERIOUS MOTOR DAMAGE!

Starter does not work

ISOLATE POWER SUPPLY. Check that the main fuse has not tripped, check the power lead to ensure that no damage has occurred, unplug the lead from the power socket, a competent electrician could check for loose or disconnected wires within the plugs and sockets. If after this has been done and you have reconnected the power it still fails to work, contact your supplier service department for assistance.

Starter clicks but motor does not work

ISOLATE POWER SUPPLY. Check the plug from starter to motor for any loose wires, check the wire for any damage. If damage has occurred or there is no apparent damage, contact your supplier service department for assistance.

Material jammed in conveyor under the receiving hopper

ISOLATE POWER SUPPLY to the conveyor. If the item cannot be removed easily contact your supplier service department for assistance.

Noise

If the conveyor starts to make any form of noise other than the normal operational noise, STOP AND ISOLATE the conveyor and check for something jamming the conveyor. If you find anything, remove it, if the noise persists, contact your supplier service department for assistance.

FIG. 1

Belt Tracking to one side at the discharge point

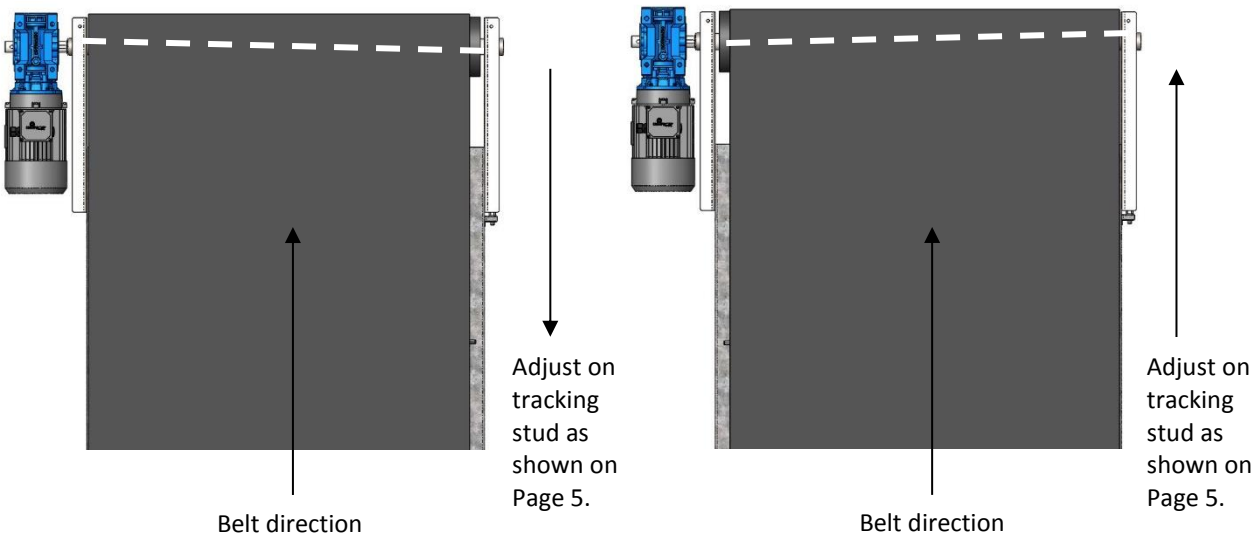
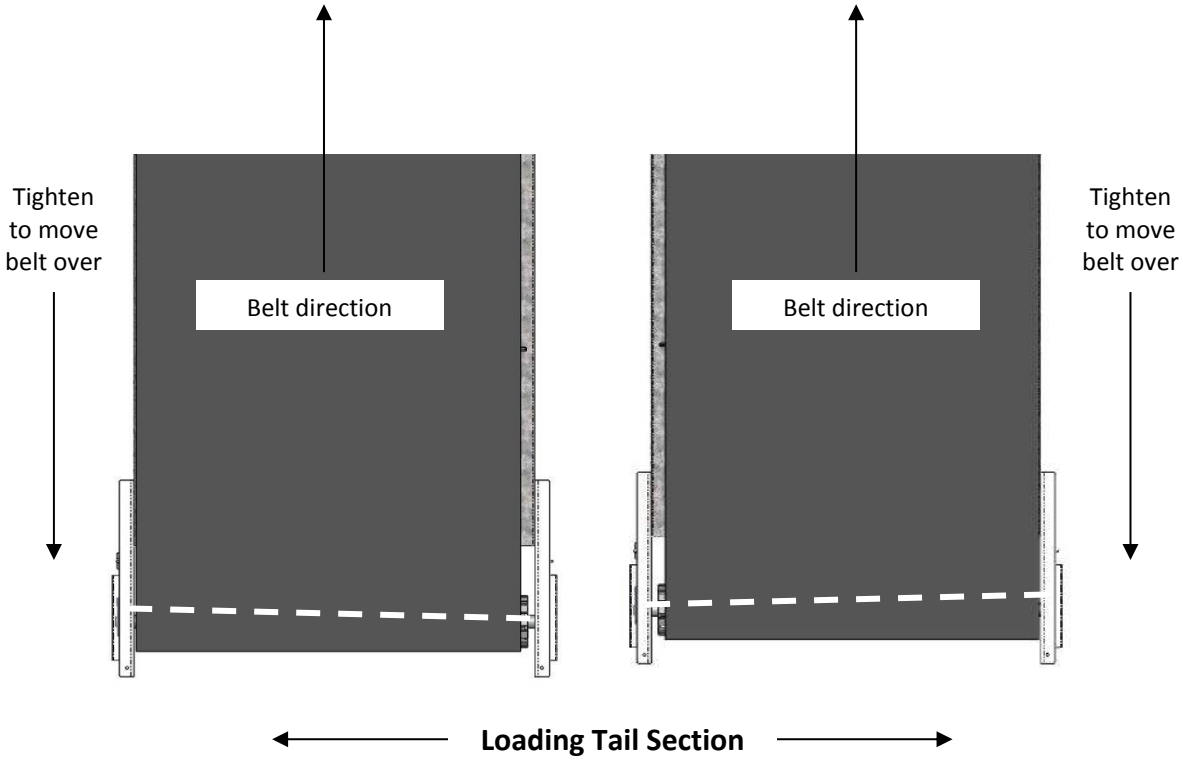


FIG. 2

Belt Tracking to one side at the loading point



ROUTINE MAINTENANCE

Routine maintenance checks are very important in maintaining the full useful working life of your Easikit conveyor. A regular maintenance program paying due attention to all the components itemised in this Routine Maintenance section will reduce the likelihood of break-down and costly downtime. Frequency of checks will depend on conveyor usage i.e. material being handled, hours worked per day etc. Checks are recommended at regular intervals depending on the amount of working hours that the conveyor is being used for.

A main feature in extending the life of your conveyor is thorough cleaning at regular intervals to prevent material build-up particularly around the feed and discharge points (good house-keeping is essential).

THERE ARE REGULAR MAINTENANCE CHECKS THAT MUST BE CARRIED OUT: -

1. **EVERY DAY**
2. **EVERY WEEK (or 60 hours)**
3. **EVERY MONTH (or 250 hours)**
4. **EVERY 3 MONTHS (or 750 hours)**
5. **ANNUALLY (or 3000 hours)**

WARNING!
DOWN TIME COSTS MONEY,
LOOK AFTER YOUR EASIKIT CONVEYOR!

DAILY CHECK LIST PRIOR TO RUNNING CONVEYOR

This daily inspection should take less than 10 minutes and may help prevent many issues and prolong the life of your conveyor.

	1. WALK AROUND MACHINE AND PERFORM VISUAL CHECKS	ACTION	✓
1.1.	Is there build up /wrapped material on under rollers?	Clean as required	
1.2.	Is there material wedged in between belt and belt covers, or other parts?	Remove it	
1.3.	Is there any damage on belt or any part of the conveyor?	Report it	
1.4.	Is there any debris on floor that is different to the material fed?	Investigate it	
1.5.	Does the belt run in the middle of drums?	If not it may require tracking	
1.6.	Is the scraper in correct position/tension?	If not, ensure it is adjusted	
	2. TURN CONVEYOR ON AND OBSERVE		✓
2.1.	Are there any seized rollers?	Report it & change them	
2.2.	Can you hear any strange noises apart from operational noises? Check whether you can hear any loud grinding/clicking/rubbing noises? (It could be a damaged bearing, seized roller, material wedged somewhere or belt rubbing onto the frame)	Investigate it	

ROUTINE MAINTENANCE CHECK LIST

1.1. MATERIAL HANDLING

It is very important to ensure that your conveyor is operating within its capacity. If you are in doubt as to the capacity, please consult your conveyor supplier. Overflowing and excessive quantities of material on the belt will lead to material build up in unnecessary areas that will in turn cause damage to your conveyor.

1.2. MATERIAL FEED POINTS

Inspect the feed points of the conveyor and ensure that material is feeding correctly onto the belt and that there is no over flow or spillage onto the surrounding area. Any material build up will create a hazard which will develop into a potential for conveyor failure and cause subsequent down time.

1.3. RUBBER BELT

Rubber belt and belt joints are classed as 'wear' items and not covered under the manufacturer's warranty. Regular checking of the belt, joints and tracking will help prevent any unnecessary damage to these items and to the conveyor framework. Particular attention will need to be given to metal clip joints (where supplied) as wear to the underside of the joint will not readily be noticeable from a surface visual inspection.

1.4. BELT SCRAPERS

A regular visual check & clean of scrapers with necessary adjustments is essential to ensure their ongoing efficient operation. Maintenance checks should be carried out as per the routine maintenance schedule on page 9. The blades are wear items and not covered by the manufacturer's warranty. Where standard Easikit primary & secondary scrapers have been supplied, the blade is reversible and can be turned around to maximize usage.

1.5. ROLLERS

Intermediate top and bottom rollers will need to be checked regularly for free rotation and any excessive wear. These have sealed for life bearings and will need to be kept free from any material build up. Do not use thin spray lubricants (i.e. WD-40) as these will wash out the pre-greased bearings. If external lubrication is needed, this should be done with a spray lubricant grease (avoid any contact with the rubber belt).

1.6. HEAD UNIT

The Head Unit should be should be checked as per the maintenance schedule and visually assessed to ensure that the drum is functioning correctly and that the lagging is not excessively worn. The Head Drum and its mountings should be secure and in alignment with the conveyor and the motor mounting bracket secure to both conveyor frame and gearbox. Checks should be carried out to the inside of the side mounting plates to ensure that the belt has not been running out of alignment causing the edge of the moving belt to rub and wear the plates.

1.7. TAIL UNIT

The Tail Unit should be checked as per the maintenance schedule and visually assessed to ensure that it is functioning correctly and that the drum is clean with no excessive build-up of material around the drum and that it is running in the bearings correctly. This can be accessed by removing the tail drum guard (and the hopper if possible). Ensure that the tensioning stud bars each side are clean and operational and that the side clamps are tightly secured. The tensioning stud bars will benefit from a periodic light greasing with a multipurpose grease.

1.8. JOINT CHECK

All conveyor section connecting bolts should be checked periodically as per the maintenance schedule. This will involve accessing the underside of the conveyor frame and mechanically checking that the connecting bolts are secure and tight.

1.9. MOTOR & ELECTRICS

Carry out a regular visual check to ensure there are no obvious signs of wear or damage to the motor and supply cables. Any wear or damage in these areas should be reported immediately to a competent electrician to carry out further investigation and any necessary repair work.

1.10. GEARBOX UNITS

All gearboxes supplied are maintenance free as they are lubricated for life at the factory and the oil should not require changing. Visually inspect for damage.

1.11. BEARINGS

All external bearings need to be inspected for any excessive wear and that they are secure to the conveyor frame and in clean condition. All these bearings will need grease lubrication regularly. The manufacturer's recommended lubricant is a high quality lithium based grease of 2-3 consistency. They will need to be checked as per the maintenance schedule.

WARNING!
DO NOT OVERGREASE BEARINGS

1.12. TOP COVERS

If top covers have been fitted they should be removed when cleaning the conveyor. Whilst the covers are removed, they should be inspected thoroughly for any damage that may have occurred to both the covers and fixings. It is important that all fixings are securely tightened after refitting the covers.

1.13. BOTTOM COVERS

Remove the bottom covers to clean under the conveyor belt periodically as per the Maintenance Schedule. Whilst the covers are removed, they should be inspected thoroughly for any damage that may have occurred to both the covers and fixings. It is important that all fixings are securely tightened after refitting the covers.

1.14. BELT TRACKING

Belt tracking should be visually checked at both ends of the conveyor to ensure that the belt is running in the centre of the drums and not running to one side more than the other. You may need to remove any objects that obstruct your visual inspection. If the belt is running out of alignment follow the belt tracking procedure as set out in the Operation Manual (see pages 5 and 8).

1.15. BELT TENSIONING

To check the belt tension on you conveyor, first make sure that there is no load on the belt. Ensure that you are situated in a safe position prior to starting the conveyor to inspect the belt running and that you are able to visually see the head drive drum on start-up of the conveyor. On start-up, first check that there is no belt slippage on the drum. If the belt is not slipping, then repeat this check with the belt running under its normal working load. Should you experience any slipping of the belt at the drive drum, then increase the tension at the tail drum end by following the tracking and tensioning procedure as set out in the Operation Manual (see pages 5 and 8).

1.16. HOPPER

Inspect regularly as per the maintenance schedule to ensure that there is no material build up in the hopper and its surrounding area. Check thoroughly that there is no damage to the hopper. Clean and remove material as necessary. Check hopper rubbers for wear or damage and replace if required. (These are classed as ‘wear’ items and not covered by the manufacturer’s warranty). Ensure all fixings are secure and tightened.

1.17. SIDE GUIDES

Side Guides need to be inspected periodically as per the maintenance schedule to ensure that they are fixed securely and that they are not damaged. These should be inspected to make sure that any side skirting that interfaces with the belt is not damaged and that it is sitting on top of the moving belt. Ensure that all side guides are free from material build up around the support brackets and feed points etc. (If rubber skirts are fitted these are classed as ‘wear’ items and not covered under the manufacturer’s warranty).

1.18. SUPPORT STANDS

All support stands should be checked periodically that all fixings are tight and secure. Inspect all supports for any damage. Replace any damaged parts as necessary. Ensure that no extra weight loadings have been added to the support stands since the conveyor was originally specified.

1.19. AUTO GREASE UNITS

If Auto Grease Units are fitted to your conveyor, these will need to be checked as per the maintenance schedule. It is important to familiarise yourself how much grease the unit is using between your inspections and ensure there will be sufficient grease to cover the conveyor running hours before your next check. If there is insufficient grease left, these should be changed and fitted as per the manufacturer's instructions. Replacement cartridges can be obtained from your conveyor supplier.

1.20. MOTION SENSORS

If a Motion Sensor has been supplied with your conveyor this will need to be regularly inspected as per the Maintenance schedule.

a) VISUAL INSPECTION - Check visually that the unit is performing mechanically and ensure that all fixings are secure and the unit is not damaged.

b) MANUAL INSPECTION - To check manual operation of the sensor, belt tension will need to be released (follow the instructions in the Easikit Instruction Manual in reverse order) until the belt and the drive drum begins to slip and that belt movement has stopped. This should then activate the Sensor to shut down the electrical supply to the motor that will in turn isolate the power supply to the conveyor. Re-tension the belt as set out in the Operation Manual (see pages 5 and 8). A competent electrician will also need to inspect the unit to ensure that it is still functioning with the electrical controls.

1.21. EMERGENCY GRAB WIRES & STOP STATIONS

All Emergency Stop devices must be regularly checked as per the Maintenance Schedule to ensure they are functioning correctly. (i.e. activate and ensure the conveyor stops). All stop units and cabling should be checked visually for damage and that all fixings are secure. Any maintenance work required should be carried out by a qualified electrician.

1.22. MOBILE CONVEYORS

It is important that all linch pins are inspected to ensure they are correctly positioned and the safety retaining pins are secure. Pneumatic tyres should be inspected regularly for damage, wear and that they are inflated with sufficient pressure as indicated on the tyre wall. Inspect hydraulics as per Section 1.24.

1.23. RADIAL CONVEYORS

Ensure the conveyor is operating correctly in its radial action and that the radial track line is clear and free from debris etc. It is important that all linch pins are inspected to ensure they are correctly positioned and the safety retaining pins are secure. Remove wheel covers and inspect wheel mounting shafts and bearings for any damage and wear. Drive shaft bearings should be greased. The manufacturer's recommended lubricant is a high quality lithium based grease of 2-3 consistency. Ensure motor mounting bracket is secure and replace covers and secure fixings. Inspect hydraulics as per Section 1.24. Radial slewing anchor bearings should be greased when required. Tightness of Lindaptor fixings should be regularly checked and tightened to a torque of 147Nm. (recommended every 6 months). Ensure ground fixing anchors are still secure and tight. Visually inspect electrical wiring and connections for any signs of damage. Any electrical maintenance work required should be carried out by a qualified electrician.

1.24. MOBILE & RADIAL HYDRAULICS

Visually check that there are no leakages or damage at hose connections, along the hose length and the ram. Check safety linch pins are correctly inserted and retained. Try and elevate the conveyor to its maximum position. If the conveyor will not reach this position, it is an indication that there is insufficient hydraulic oil in the system. Next lower the conveyor to its lowest position, ensuring that the hydraulic ram is in its closed position. Proceed to add oil to the hydraulic pump as necessary.

1.25. CONVEYOR WASHDOWN

Periodic washing and cleaning of your conveyor will be necessary to maintain its efficient operation. The manufacturers recommend the use of a high power water jet or similar (e.g. steam cleaner). Correct PPE should be worn when carrying out washing etc. Prior to undertaking any washing, the environment the conveyor is situated in should be considered and that no damage of surrounding items is likely to occur. Ensure there is adequate drainage prior to washing. Excessive material should be disposed of in a manner that will not cause damage to the environment. It will be necessary to remove conveyor covers to give access to the belt area (see Sections 1.12 & 1.13). Ideally the belt tension should be released allowing the belt to be raised to gain access to the inside of the conveyor frame. Particular attention and thorough washing will be required around the head and tail drum areas.

WARNING!

ENSURE ALL COVERS & GUARDS HAVE BEEN REPLACED PRIOR TO RE-STARTING YOUR CONVEYOR AND THAT ALL FIXINGS ARE TIGHT & SECURE.

1.26. DOCUMENTATION

All maintenance should be documented accordingly in the section at the rear of this Service & Maintenance Schedule.

EASIKIT ROUTINE MAINTENANCE SCHEDULE

Item	Maintenance check	Frequency			
		Weekly	Monthly	3 Monthly	Annual
		or 60 hours	or 250 hours	or 750 hours	or 3000 hours
1.1	Material Handling			✓	✓
1.2	Material Feed Points	✓	✓	✓	✓
1.3	Rubber Belt	✓	✓	✓	✓
1.4	Belt Scrapers	✓	✓	✓	✓
1.5	Rollers		✓	✓	✓
1.6	Head Unit			✓	✓
1.7	Tail Unit			✓	✓
1.8	Toggle & Joint Check			✓	✓
1.9	Motor & Electrics	✓	✓	✓	✓
1.10	Gearbox Units				✓
1.11	Bearings			✓	✓
1.12	Top Covers			✓	✓
1.13	Bottom Covers		✓	✓	✓
1.14	Belt Tracking	✓	✓	✓	✓
1.15	Belt Tensioning			✓	✓
1.16	Hopper			✓	✓
1.17	Side Guides			✓	✓
1.18	Support Stands				✓
1.19	Auto Grease Units			✓	✓
1.20	Motion Sensor - Visual	✓	✓	✓	✓
	Motion Sensor - Manual			✓	✓
1.21	Emergency Grab Wires			✓	✓
1.22	Mobile			✓	✓
1.23	Radial			✓	✓
1.24	Mobile & Radial Hydraulics			✓	✓
1.25	Conveyor Wash down				✓
1.26	Documentation		✓	✓	✓

Contact your supplier for replacement parts.

ROUTINE MAINTENANCE CONTRACTS

Service contracts are available. Contact your supplier for details

WARRANTY

It is important that the Maintenance Schedule is adhered to in order to validate the manufacturer's warranty.

SERVICE HISTORY

MAINTENANCE CARRIED OUT	SERVICE TYPE					
	MONTHLY		3 MONTHLY		ANNUAL	
SIGNATURE:	PRINT:			DATE:		

Next service due: - ____/____/_____

MAINTENANCE CARRIED OUT	SERVICE TYPE					
	MONTHLY		3 MONTHLY		ANNUAL	
SIGNATURE:	PRINT:			DATE:		

Next service due: - ____/____/_____

MAINTENANCE CARRIED OUT	SERVICE TYPE					
	MONTHLY		3 MONTHLY		ANNUAL	
SIGNATURE:	PRINT:			DATE:		

Next service due: - ____/____/_____

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SIGNATURE:	PRINT:			DATE:		

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	MONTHLY		3 MONTHLY		ANNUAL	
SIGNATURE:	PRINT:			DATE:		

Next service due: - ____/____/_____

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MAINTENANCE CARRIED OUT	SERVICE TYPE					
	MONTHLY		3 MONTHLY		ANNUAL	
SIGNATURE:	PRINT:			DATE:		

Next service due: - ____/____/_____

PLEASE CONTACT YOUR SUPPLIER FOR FURTHER COPIES OF THIS OPERATION & MAINTENANCE MANUAL