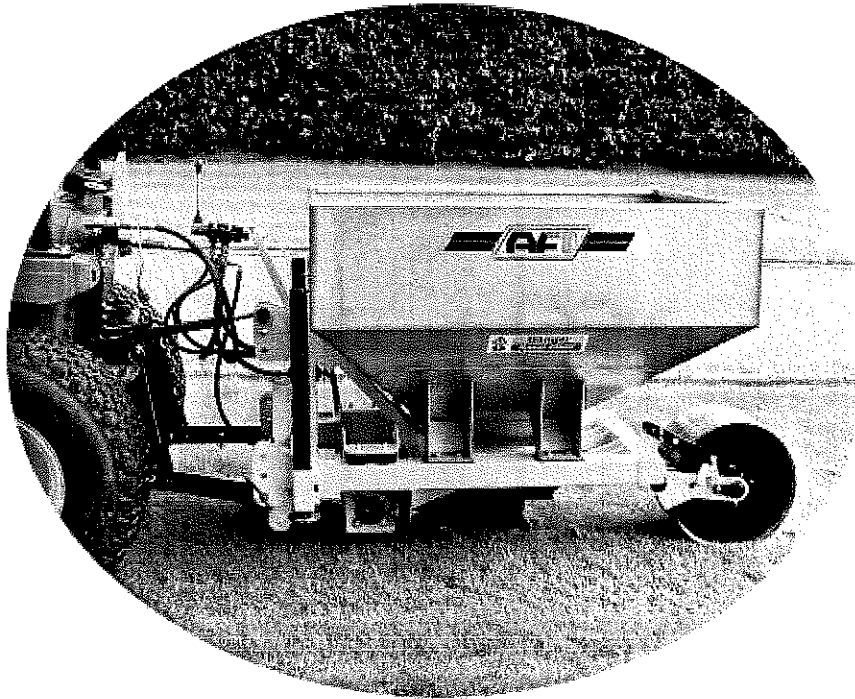


AFT

SandBander

Operation And Maintenance

Manual



Manufactured By

AFT TRENCHERS LIMITED

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Manual Manufactured 2008

Parts Manual Contents

Section 1:-

- Applications For The Sandbander 1-1
- Applications To Avoid With The Sandbander 1-2
- Attachment Of The Sandbander To The Tractor 1-3
- Using The Sandbander 1-3
- Removing The Sandbander From The Tractor 1-4
- Making Adjustments Or Clearing Obstructions 1-5
- Health And Safety Guidelines 1-6/1-7

Section 2:-

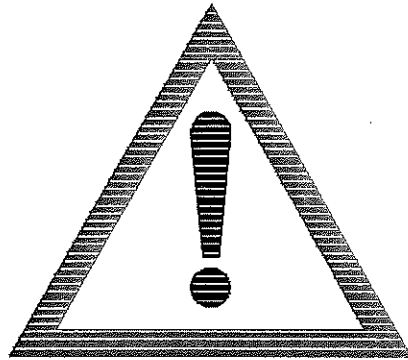
- Daily Maintenance Requirements 2-1
- Weekly Maintenance Requirements 2-1
- Blade Maintenance 2-2
- Maintenance, Blade Shaft Speed And Daily Grease Points 2-3

Section 3:-

- Specifications 3-1
- Chute And Bearings 3-2
- 002004 Blade Assembly Complete 3-2
- Turf Disc 3-3
- Depth Roller 3-4
- Gate And Carrier assembly 3-4
- Shaft Assembly And Carrier 3-5
- Rear Vibration Mountings 3-6
- Gate Assembly 3-7
- Hopper Grill Assembly 3-8
- Hydraulics For Tractors With One Spool Valve 3-9/3-10
- Filter Hopper Mount 3-11
- Hydraulic Fittings 3-12
- Hydraulic Pipes 3-13
- Tractor Hydraulics For ZE01 3-14
- Motor Fittings 3-15
- Flow Control 3-16

Section 4:-

- Attachment Of Semi-Mounted Sandbander To Tractor 4-1
- Using The Semi-Mounted Sandbander 4-2
- Removing The Semi-Mounted Sandbander From The Tractor 4-2
- Wheeled Sandbander Additional Parts 4-3
- Wheel And Stabiliser Hydraulics 4-4
- Sandbander Gate And Motor 4-5



Section 1:

Applications For The Sandbander
Applications To Avoid With The Sandbander
Attachment Of The Sandbander To The Tractor
Removing The Sandbander From The Tractor
Making Adjustments Or Clearing Obstructions
Health And Safety Guidelines

Applications For The Sandbander

The Sandbander is designed only for use as a Trench less Sand Banding machine for land and sports field drainage. The Sandbander installs 25 mm wide drainage slits, filling them at the same time with consolidated sand in soil at a depth of 150 mm to 250 mm deep, operating at a shaft rotation speed of 1200 to 1600 revs per minute.

The unique blade design and fast oscillation creates minimal heave and permits even moist sand to be used.

The ideal tool to quickly drain excess surface water to free draining subsoil or existing drainage systems. Using sand rather than gravel ensures that essential moisture levels are retained in the root zones and that no harmful spills can damage mowers or players.

Designed for tractors from 20HP with an oil flow from 20L/min at 150-bar minimum, it can safely work on sensitive areas like golf and bowling greens.

Spool Valves: 2 double acting (when only one is available, a special valve can be supplied with the sandbander)

If required, the sandbander can also be used with gravel not exceeding 3 mm Dia, or similar backfilling materials.

The machine is designed for use in moist or very moist soils.

Applications To Avoid With The Sandbender

This Sandbender is not designed for operating in roads, concrete, through rock or any other type of hard material.


This sandbender is not designed for operating in soil where large rocks, boulders or stones cannot be excavated and removed through the trenchers frame.

This sandbender is not designed for usage where the blade bounces over obstructions which can not be moved.

The operators **MUST** check the land being worked on is free of existing drainage pipes, gas mains or electric cables and any other such items which may be damaged or damage the operators.

Avoiding underground services

Look around for obvious signs of underground services; e.g. valve covers, stand pipes or patching of the road surfaces running near or through the site. Use locators to trace any services. Mark the ground accordingly.

 **MAKE SURE** that the person supervising the work has service plans and knows how to use them. Everyone carrying out the work should know about safe digging practices and emergency procedures.

Undermining nearby structures

Make sure banding does not affect the footings of scaffolds or the foundations of nearby structures. Walls may have very shallow foundations, which can be undermined by even small trenches. Decide if the structure needs temporary support before digging starts. Surveys of the foundations and the advice of a structural engineer may be needed.

 **NOTE: YOU COULD BE RESPONSIBLE FOR ANY DAMAGE CAUSED**

 **Banding through an electric mains cable can KILL YOU!**

ATTACHMENT OF SANDBANDER TO TRACTOR

1. Fit counterbalance weights to front of tractor (not required when a front mounted implement is fitted).
2. Check that the hose connectors on the Sandbander match those on the tractor. Note: Some tractors have hydraulic valves fitted that switch the hydraulic oil supply from the three point linkage controls to external services. This system is not suitable for the Sandbander as Blade Motor must have constant supply whilst still controlling the raising and lowering of the Sandbander.
3. Fit the adjustable top link to the tractor.
4. Connect the 3-point linkage to the Sandbander. Fit the top link to the pinhole, one from the top. Raise the Sandbander slowly on the 3-point linkage. Check that it is clear of the tractor rear window if open. **Note:** Raising or lowering the top link position on the Sandbander will increase or decrease the ground clearance of the Sandbander when in the raised position. Raise the trencher support legs.
5. Adjust the check chains on the tractor lower linkage arms so that the Sandbander, the top link, and the tractor are all in line. Leave about 50 mm of sideways movement both sides of centre.
6. Connect the hydraulic hoses.
7. Raise the Sandbander and check the operation of all controls.

IMPORTANT SPECIAL NOTE

DUE TO THE HIGH PERFORMANCE OF THE SANDBANDER HYDRAULIC MOTOR, WHICH IS A BENT AXIS PISTON TYPE WITH CASE DRAIN.

THE FOLLOWING SHOULD BE OBSERVED:

1. THE RETURN OIL FLOW SHOULD NOT BE RESTRICTED
2. THE TRACTOR SPOOL VALVE SHOULD PREFERABLY BE SINGLE ACTING
3. ANY TRACTOR HAVING SPECIAL DOUBLE ACTING SEMI LOCKING SPOOL VALVES MUST BE SET TO SINGLE ACTING

TO DATE ONLY NEW HOLLAND TNXXDA MAY BE A PROBLEM AND CAN BE SET TO SINGLE ACTION (CHECK TRACTORS HANDBOOK)

THERE ARE SAFETY FEATURES ON THE SANDBANDER TO PREVENT DAMAGE TO THE HYDRAULIC MOTOR.

THERE IS A PRESSURE RELIEF VALVE ITEM 1 PAGE SBSEC3-12

IF OIL IS COMING FORM THIS VALVE THEN PLEASE CONTACT AFT TRENCHERS OR YOUR TRACTOR DEALER.

IN MOST CASES THIS COULD BE CLARIFIED WHEN YOU TAKE CHARGE OF YOUR NEW SANDBANDER.

USING THE SANDBANDER

With the Sandbander mounted to tractor and filled with sand to the capacity of the hopper and, or tractors lifting capacity start the sandbanding operation.

To start the sandbanding operation lower the machine into the ground, when the blade has made contact with the ground, whilst moving forward open the gate via the control valve or tractor spool valve. After a metre or so the following should be checked:

1. The sandbander frame is parallel to the ground at all times, if not adjust the top link.
2. The depth wheel is set to your required trench specifications, via the wheel adjuster (002017 see page SBSEC-3-4B).
3. The sand control plate (598048 see page SBSEC-3-4B) is adjusted to adequately fill the trench so that it remains level after the depth wheel has compressed the sand band.
4. If and when item no. 1 (top link) is readjusted this may affect item no's. 2 and 3.


Once the machine has been adjusted to run level. You can aid usage over un-level ground by putting the tractors top link into the centre elongated hole on the sandbander. The top link should be adjusted so the pin is midway in the slot, whilst holding the weight on the tractor lift arms. This will allow a slight float and maintain weight on the depth wheel.

Note: The sandbander should be lowered so it is carried on the depth wheel totally.

REMOVING THE SANDBANDER FROM THE TRACTOR

1. Use the depth wheel linkage to lower the depth wheel to its further most hole to support the trencher.
2. Lower the Sandbander legs.
3. Lower the Sandbander onto its legs and depth wheel.
4. Disconnect the hydraulic hoses and place in a secure position off the ground.
5. Slacken the check chains if necessary and disconnect the three-point linkage.
6. Drive the tractor carefully away from the Sandbander making sure that everything is free. Note: If you intend to transport the machine we recommend that before the Sandbander is removed from the tractor the depth wheel is blocked either side with wood, this increases the machine's stability.

MAKING ADJUSTMENTS OR CLEARING OBSTRUCTIONS

1.  WARNING: If it is necessary to adjust or remove obstructions from ANY part ALWAYS stop the engine and use the correct tools. Any guards removed must be replaced.
2. All adjustments or repairs should be carried out with the engine stopped and the Sandbender on the ground. It may fall if the hydraulics are opened.
3. Do not adjust or remove hydraulic hoses under pressure.
4. Many machine parts are heavy; get help if it is necessary to lift them.
5. When handling or removing digging blade the shaft may turn unexpectedly and trap your hand.

LEAVING THE MACHINE

Lower the Sandbender onto the ground and return all hydraulic control levers to the neutral position. Apply the tractor hand brake, stop the engine and remove the ignition key. Check that all guards are in place for the configuration you are using.

Health And Safety Guidelines

The Tractor, Sandbander And Operator

Legal requirements (Operator Must Have A Knowledge Of)

Health and Safety at Work etc Act 1974

Management of Health and Safety at Work Regulations 1992

Workplace (Health, Safety and Welfare) Regulations 1992

Provision and Use of Work Equipment Regulations 1992

Construction (Health, Safety and Welfare) Regulations 1996

☞ The Tractor and Sandbander MUST ONLY BE operated by a competent person conversant with the above regulations.

The tractor must be within its manufacturers range of 15kW(20HP) to 37kW(50Hp) operating with a 1200 to 1600 Shaft Speed (RPM).

The tractor three-point linkage must be capable of lifting and supporting the weight of the Sandbander and all options. Gross 1.4 Metric Tonnes (Depending On Moisture Content Of Sand) When Full.

If the tractor steering is found to be light on the front wheels the tractor must be fitted with the manufacturers recommended front end weights until the tractor stability and steering are not impaired and is safe to operate.


☞ NOTE: All operations of the Sandbander must be carried out whilst the operator is seated on the tractor operators seat and not from Sandbander or ground.


The operator must know and understand the function of each control.


All guards must be fitted correctly and securely when the Sandbander is in use, If they have been removed for any reason they must be refitted before work is continued.

☞ NOTE: Some guards form part of the Sandbander structure and are required for efficient operation. (Damage can occur if guards are left off)
Guards are fitted for operator and other personnel's safety.

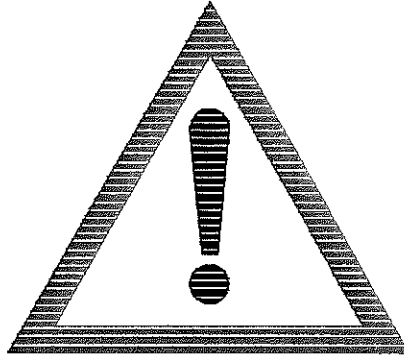
☞ DO NOT allow passengers to ride on the Sandbander.

 NEVER touch moving parts, change the blade, carry out maintenance or remove blockages unless the operator dismounts from the tractor, disengages the Shaft, stops the engine, applies the stationary brake and removes the tractor Key with the Sandbander fully and safely supported.

 CAUTION: When working on or maintaining the Sandbander it is strongly recommended that safety footwear, protective gloves and safety glasses should be worn especially when the cutting blade is changed.

 CAUTION: When working on or maintaining the Sandbander it is strongly recommended that overalls should be worn, all loose clothing i.e. ties, scarves, loose coats and long hair should be restrained especially near shafts.

Tests have indicated that under certain conditions noise levels in excess of 94db can be produced and in such conditions ear protectors should be worn. Also in excessively dry conditions operating the Sandbander, dust can be produced. In these conditions dust masks should worn.



Section 2:

Daily Maintenance Requirements
Blade Maintenance
Maintenance, Blade Shaft Speed
And Daily Grease Points

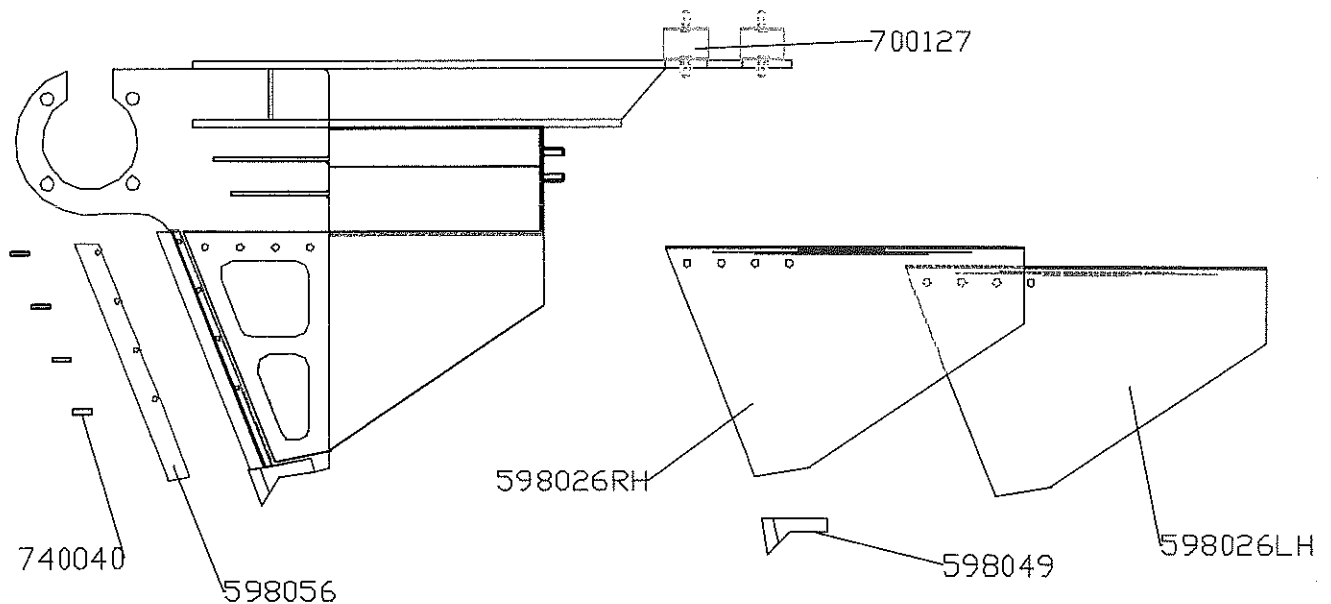
Daily Maintenance Requirements

- Check Grease Points See Page SBSEC-2-3A
- Check Nuts And Bolts Are Tight
- Check Filter. If Indicator Is Green Do Not Change, If Red It Requires Changing Our Part Number 386278 (Filter Element)

Weekly Maintenance Requirements

- Check Blade (598056) For Wear, Particularly The Leading Edge Before It Damages The Leg. See Page SBSEC-2-2A
- Check Blade Tip (598049) For Wear. See Page SBSEC-2-2A

Blade Maintenance



1. NOTE: Support Blade Assembly Prior To Removal. To Remove Complete Assembly, 4 Off M10 Nyloc Nuts From Items 700127, Undo Bearing (065187) Shaft Grub Screws 2 In Each And Remove 4 Off Bolts See SBSEC- -2B Items 14, 15 And 16. You Should Then Be Able To Slide The Bearings Away From The Blade Both Sides. At This Point Care Should Be Taken As The Assembly Should Then Drop Down, Remove Your Support And Lower To The Ground.

NOTE: Get Help Removing This Assembly As It Is Reasonably Heavy. Reassemble In Reverse Order.

2. To Replace Cutting Blade 598056 Punch Out 4 Off Roll Pins 740040, Lever Out From Top, Replace If Required Using New Roll Pins.

3. To Replace Tip 598049. This Is A Welded Item Which Must Be Ground Off And A New Tip Welded In Place When Required.

4. Side Wear Plates 598026RH And 598026LH, These Items Are Semi-Welded. To Remove Either Side, Undo And Remove 4 Bolts, Then Grind Most Off The Leading Edge Weld, This Should Allow The Item To Be Forced Back On Itself And Break Free. Clean Off Remaining Weld From Main Leg, Bolt Back Replacement Items And Reweld 4mm Fillet Both Sides.

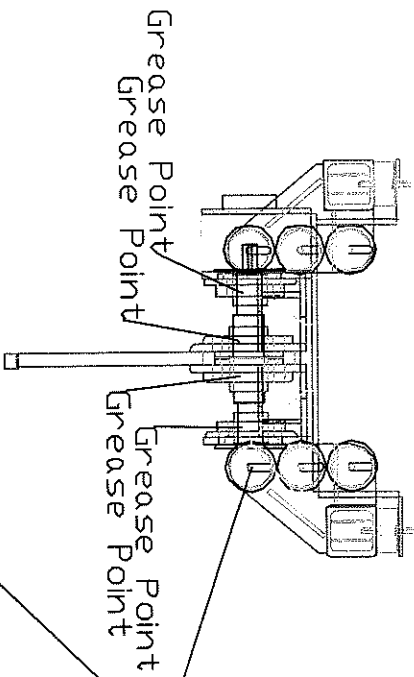
NOTE: Welding Off These Items Requires A Dissimilar Electrode Due To The Mix Of Steel And Stainless Steel.

5. If You Or Your Company Do Not Have Maintenance Equipment To Perform The Tasks 2 And 3 then A Refurbished Assembly Will Be Provided (Item 002004 Refurbish).

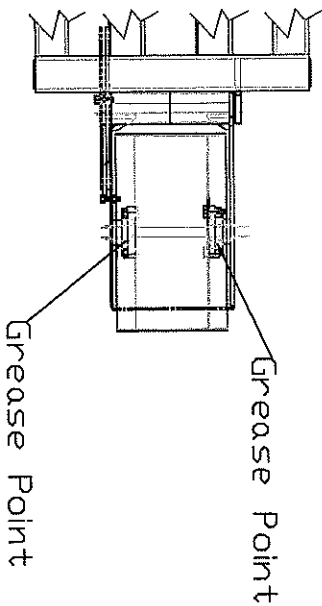
SPECIAL NOTE: Care Must Be Taken When Operation 2 And 3 Are Carried Out That The Proper Safety Precautions Are Adhered To When Grinding And Welding, i.e. Safety Glasses, Gloves And Appropriate Masks Are Used. AFT Trenchers Ltd. Will Not Accept Responsibility For Customers Own Maintenance Operations Or Procedures.

Maintenance
Blade Shaft Speed
And Daily Grease Points

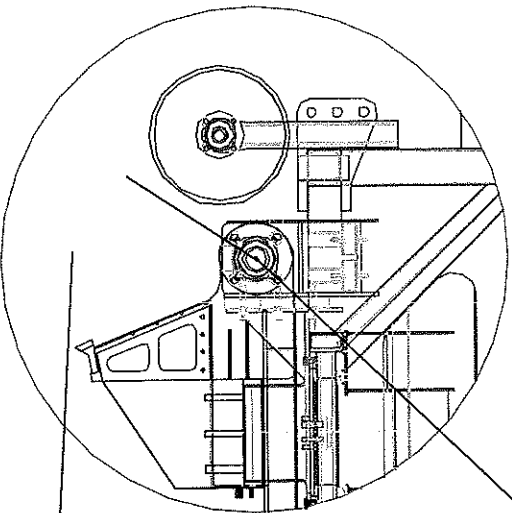
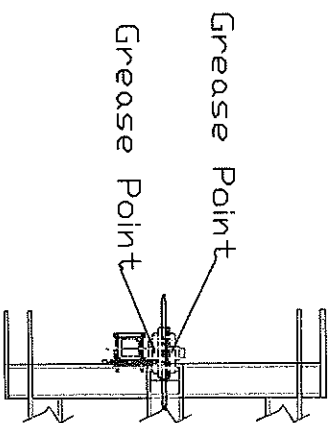
Carrier Blade
Assembly



Depth Wheel
Assembly

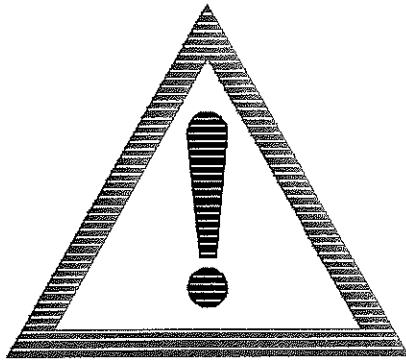


Disc And Clamp Assembly



Tachometer

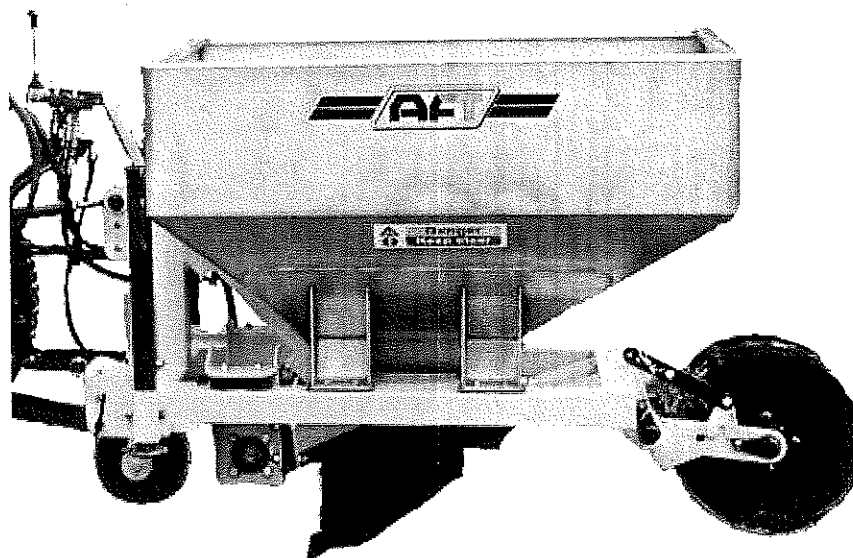
Adjust Tractor Revs Or Oil
Flow Or Both, To Maintain
1200 To 1600 Revs Per Min.
Do Not Exceed 1600 Revs As
This Will Cause Damage To
The Vibration Mountings.
Note: This Must Be Done,
Especially If Changing To A
Different Tractor.



Section 3:

Parts List For Sandbander

Specifications

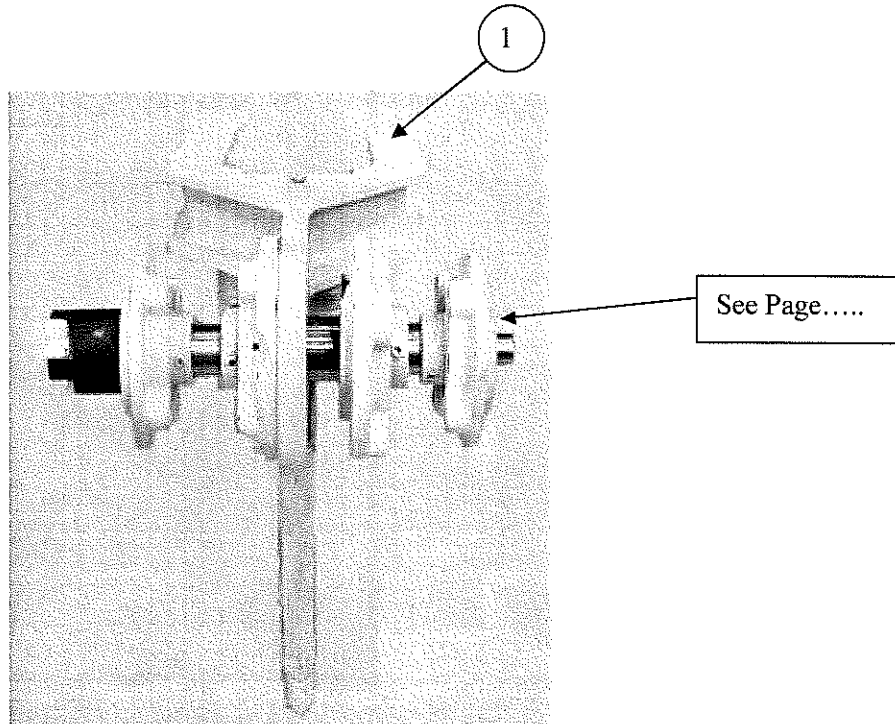


Height	1.15 Metres Working 1.40 Metres Overall
Length	1.95 Metres
Width	1 Metre
Weight	350 Kilos Approx.
Trench Width	25 mm
Trench Depth	250 mm
Hopper Capacity	1.0 M ³ Approx.
Minimum Oil Flow Recommended	22 Litres Per Min Minimum
Maximum Oil Flow Recommended	55 Litres Per Min Maximum
Oil Pressure	150 Bar Minimum
Revs Per Min	1200 To 1550
Tractor Requirement	20 H/P Or 15 kW Minimum
Aggregate	Sand Or Lytag

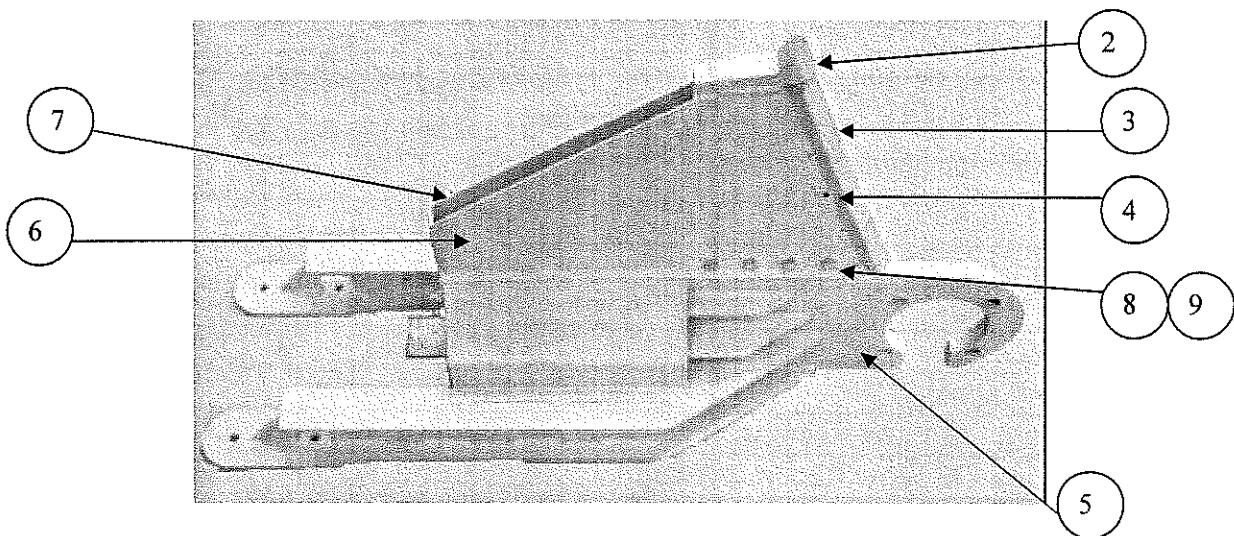
Special Note: 55 Litres Per Minute Oil Flow Should Not Be Exceeded, If Using A Large Tractor With oil Flow Far Greater Than 55 LPM Then A Lower Engine Revolution Should Be Used To Compensate.

SBSEC-3-1A

Chute and Bearings

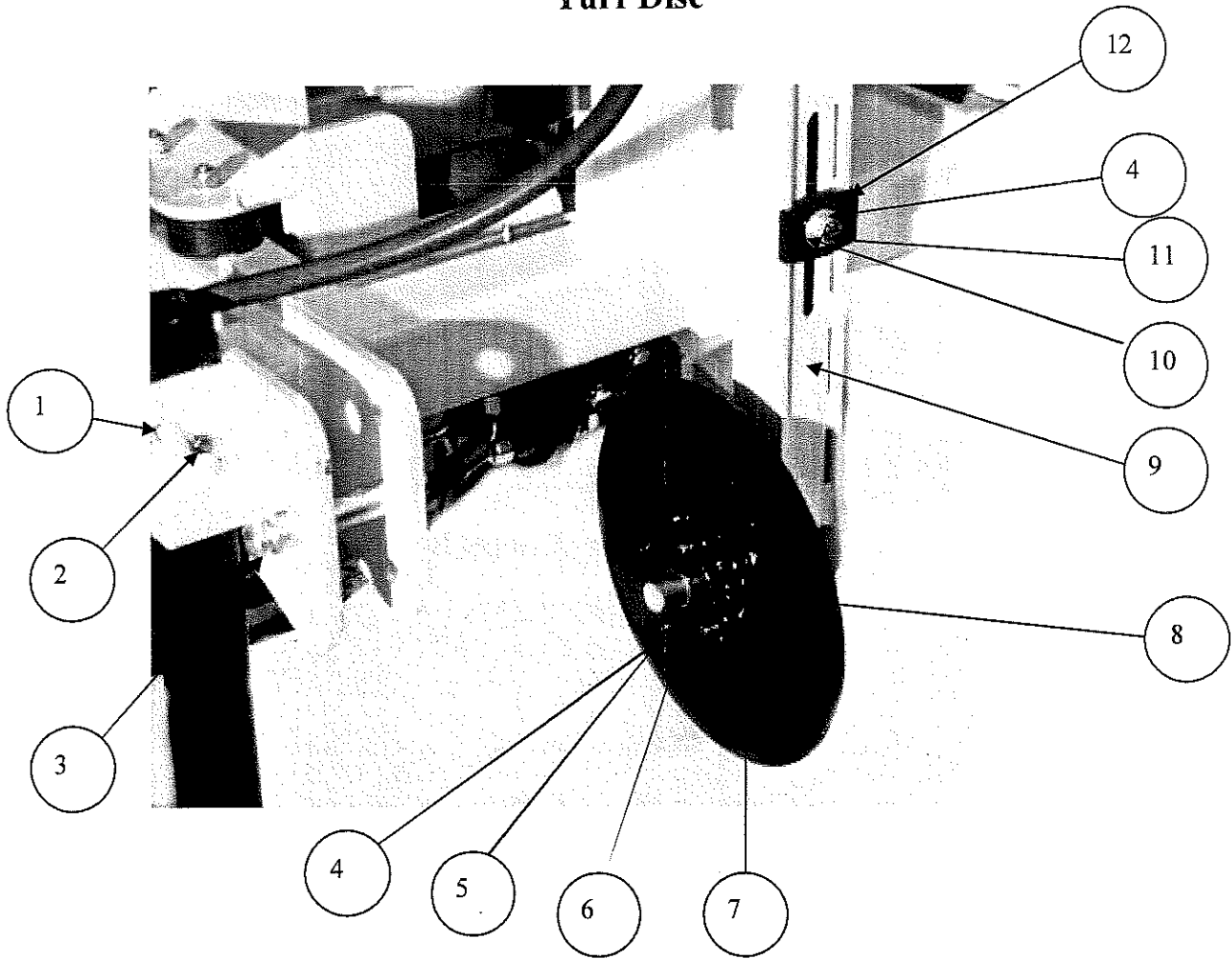


002004 Blade Assembly Complete

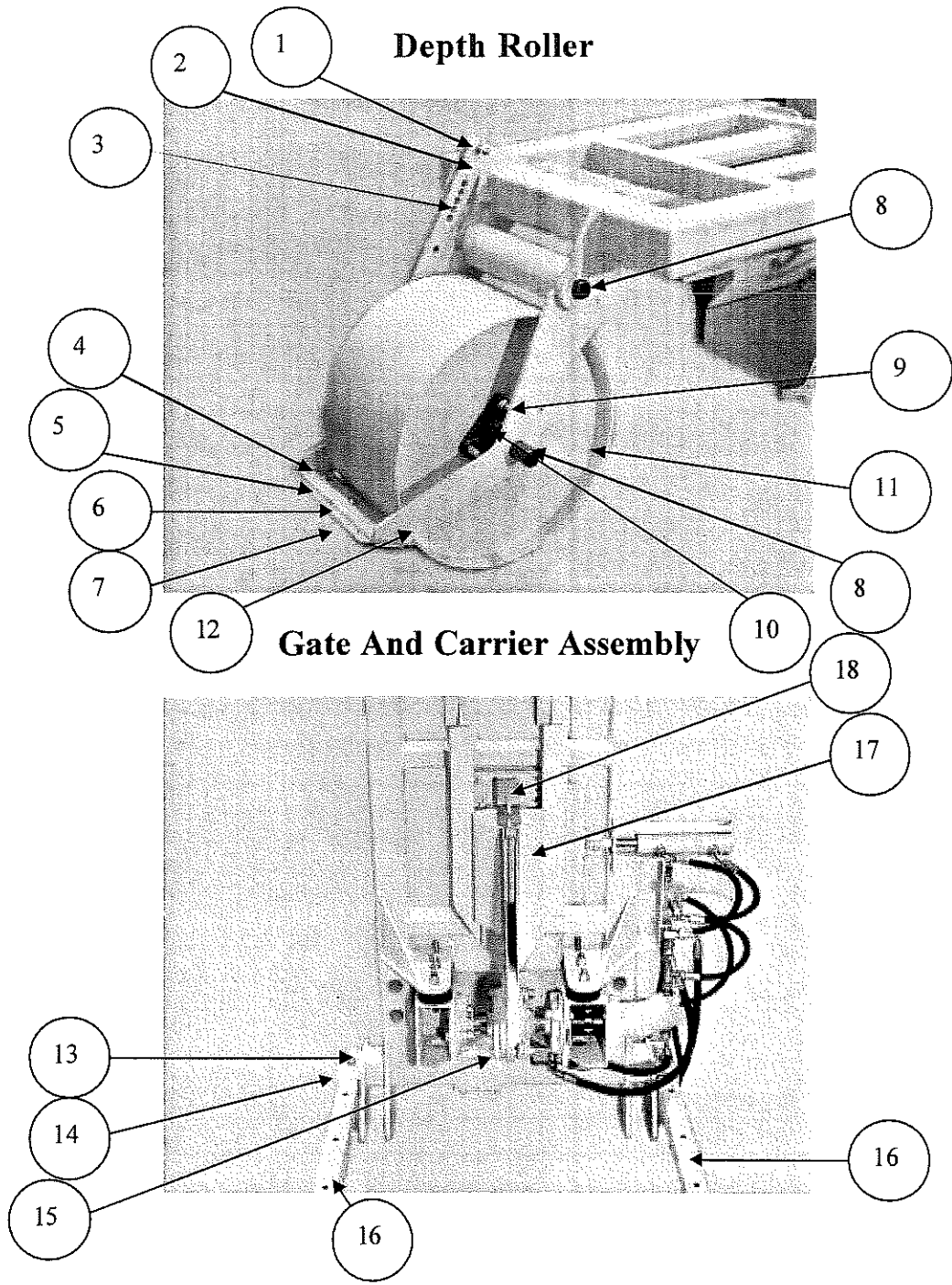


No.	Part No.	Description	Qty
1	002004	Blade Assembly Complete	1
2	598049	Blade Tip	1
3	598056	Blade Insert (Replaceable)	1
4	740040	Tension Pin	4
5	002002	Blade Assembly	1
6	598026RH	Lower Chute Wear Plate RH (Replaceable)	1
7	598026LH	Lower Chute Wear Plate LH (Replaceable)	1
8	BM08035	8 mm x 35 mm Bolt	4
9	NM08SL	8 mm Nyloc Nut	4

Turf Disc

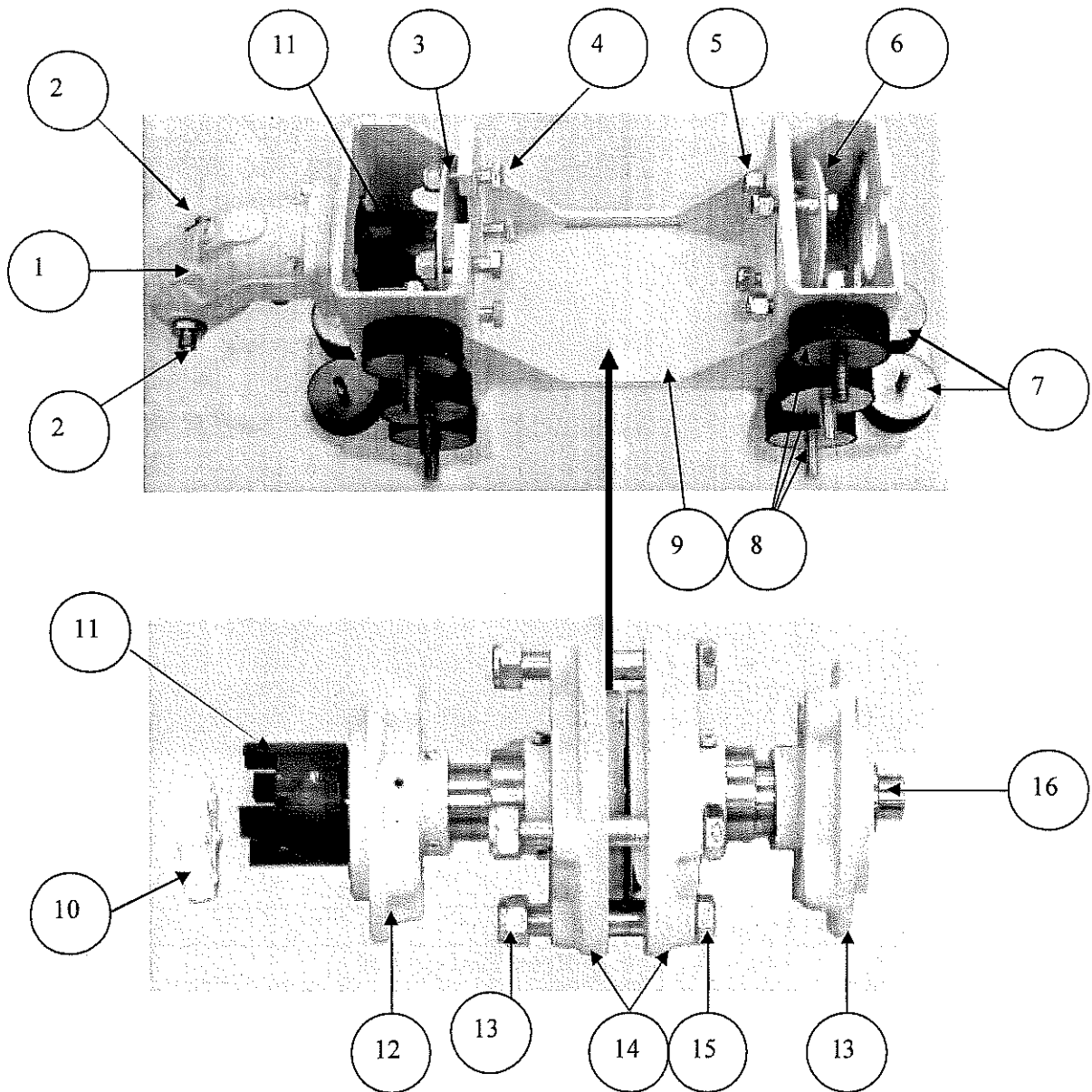


No	Part No	Description	Qty
1	577003	'R' Clip	2
2	753453	Lock Pin	2
3	753954	Lower Link Pin	2
4	NM12SL	12 mm Nyloc Nut	5
5	BM12075	12 mm x 75 mm Bolt	4
6	065188	Turf Disc Bearing	2
7	598039	Disc	1
8	598042	Disc Bearing Spacer	2
9	002011	Disc Arm	1
10	801024	Disc Spring	2
11	BM12100	12 mm x 100 mm Bolt	1
12	598039	Front Clamp Plate	1



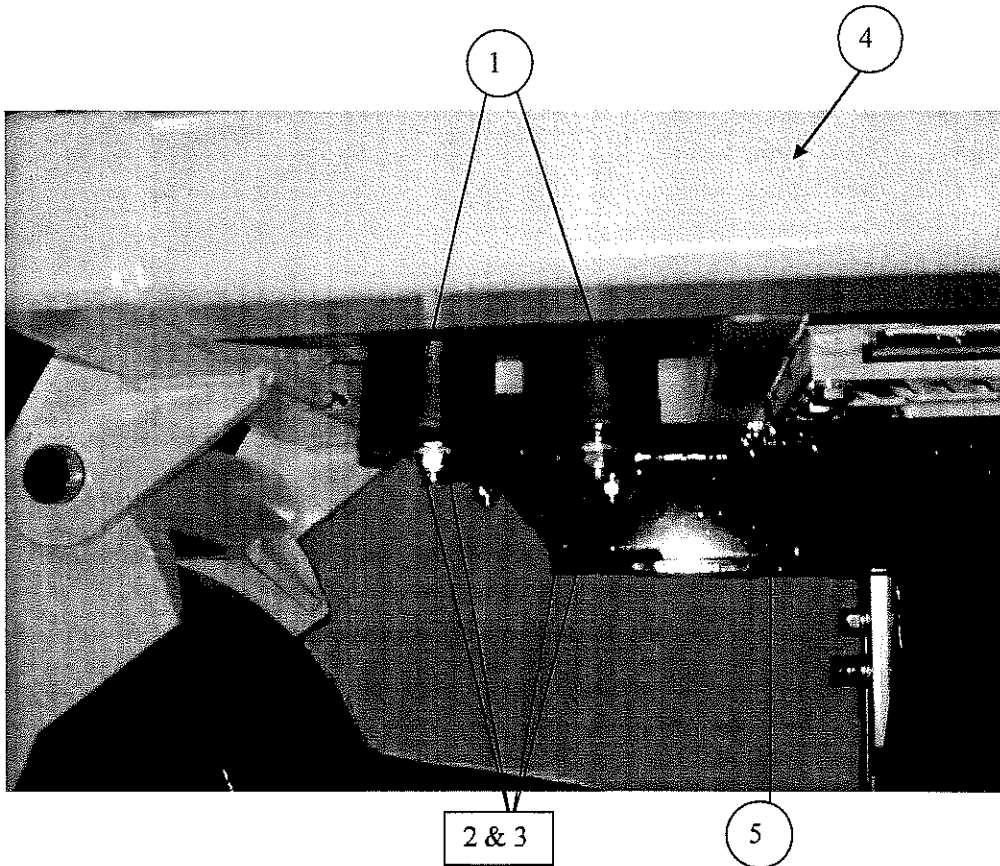
No.	Part No.	Description	Qty	No	Part No.	Description	Qty
1	753334	Support Pin	1	10	065128	Bearing	2
2	577001	'R' Pin	1	11	003018	Land Wheel	1
3	002017	Wheel Adjuster	1	12	002014	Wheel Frame	1
4	SM10025	Set Screw	3	13	753453	Lock Pin	2
5	NM10SL	Nyloc Nut	3	14	577003	'R' Pin	2
6	700124	Wheel Scraper	1	15	065187	Blade Bearing	2
7	596478	Scraper Clamp	1	16	004474	Support Leg	2
8	002010	Axle Shaft	2	17	002004	Blade & Lower Chute	1
9	NM12SL	Nyloc Nut	8	18	598048	Control Plate	1

Shaft Assembly and Carrier



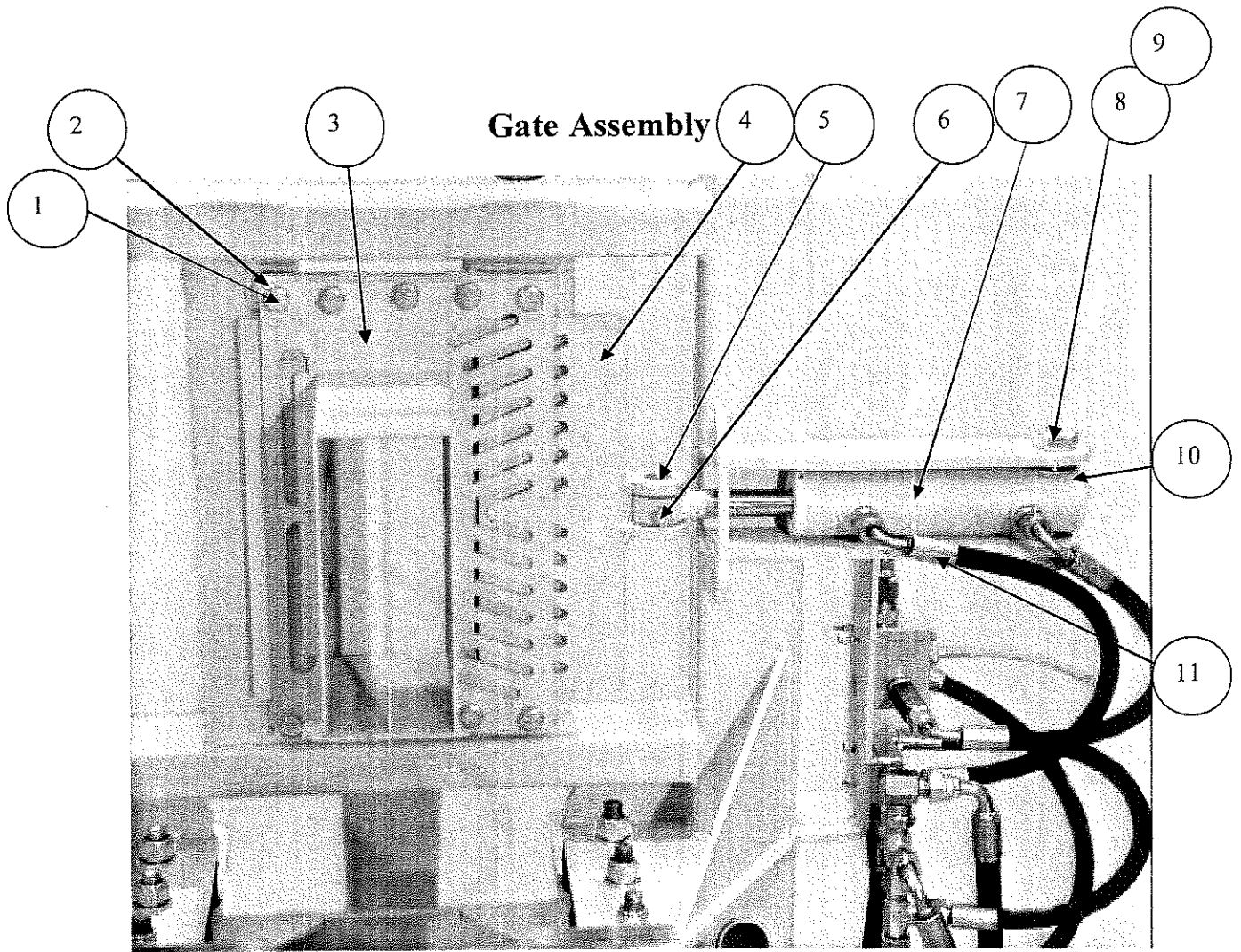
No.	Part No	Description	Qty	No.	Part No	Description	Qty
1	353308	Hydraulic Motor	1	9	002001	Blade Carrier Frame	1
2	386280	Unequal Union	1	10	353309S	Drive Coupling Centre	1
3	598047	Cap. Plate Motor End	1	11	353309	Motor Coupling	1
4	BM14060	14 mm x 60 mm Bolt	8	12	065186	Motor Shaft Bearing	2
5	NM14SL	14 mm Nyloc Nut	8	13	NM16SLT	16 mm Thin Nyloc Nut	4
6	598046	Shaft End Cap. Plate	1	14	065187	Blade Bearing	2
7	700126	Top Anti-Vib Mount	4	15	BM16100	16 mm x 100 mm Bolt	4
8	700128	Vert. Anti-Vib Mount	6	16	753945	Blade Shaft	1

Blade Rear Vibration Mountings



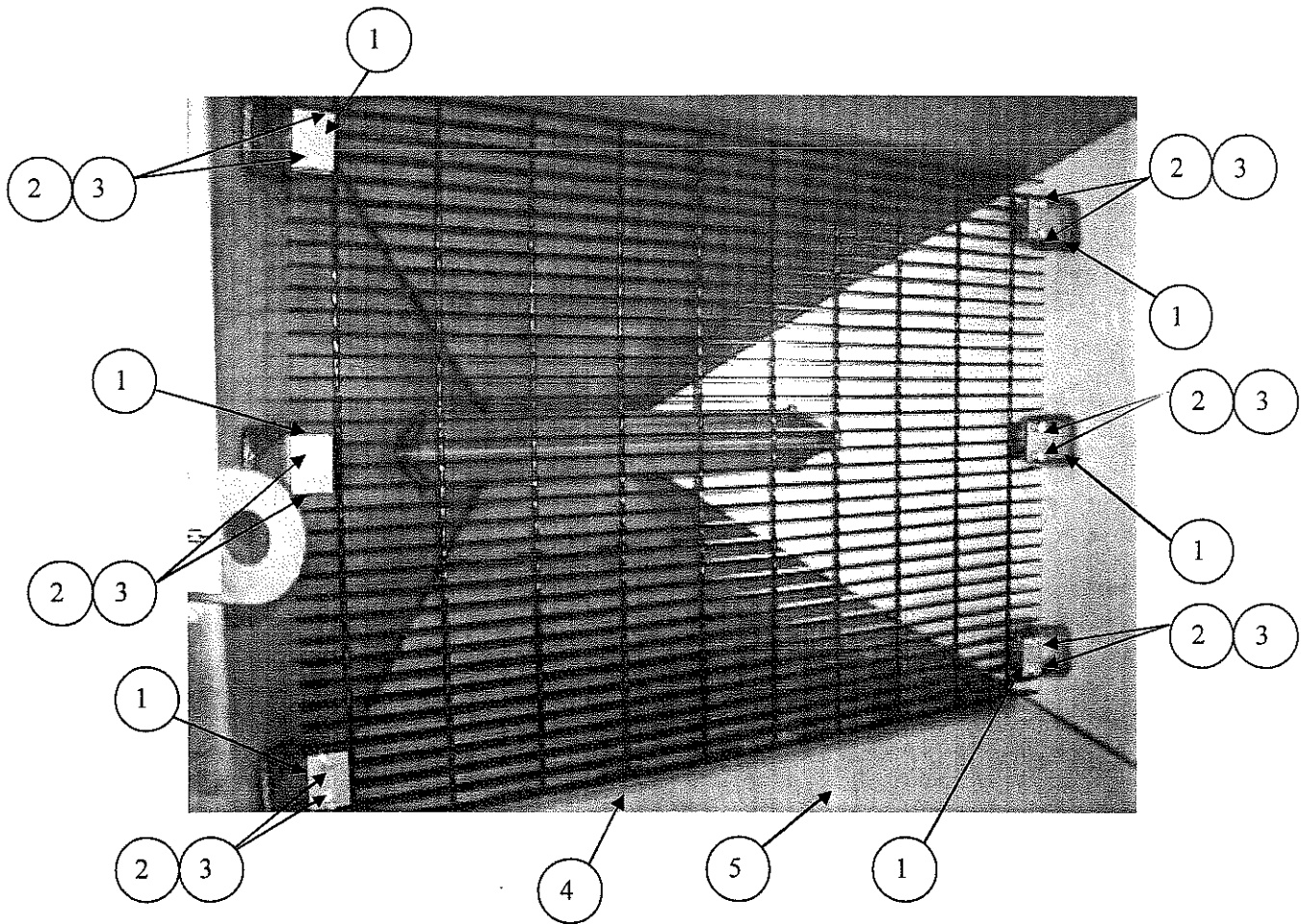
No.	Part No.	Description	Qty
1	700127	Blade Assembly Rear Fleximount	4
2	NLW10	10 mm Lock Washer	8
3	NM10SL	10 mm Nyloc Nut	8
4	002000	Mainframe	1
5	002004	Blade and Lower Chute	1

Items 2 (NLW10) and 3 (NM10SL) are fitted to the top and bottom of the Fleximount's (700127) on both sides of the machine. In the event of any repairs the NLW10 (Item 2) must be replaced.



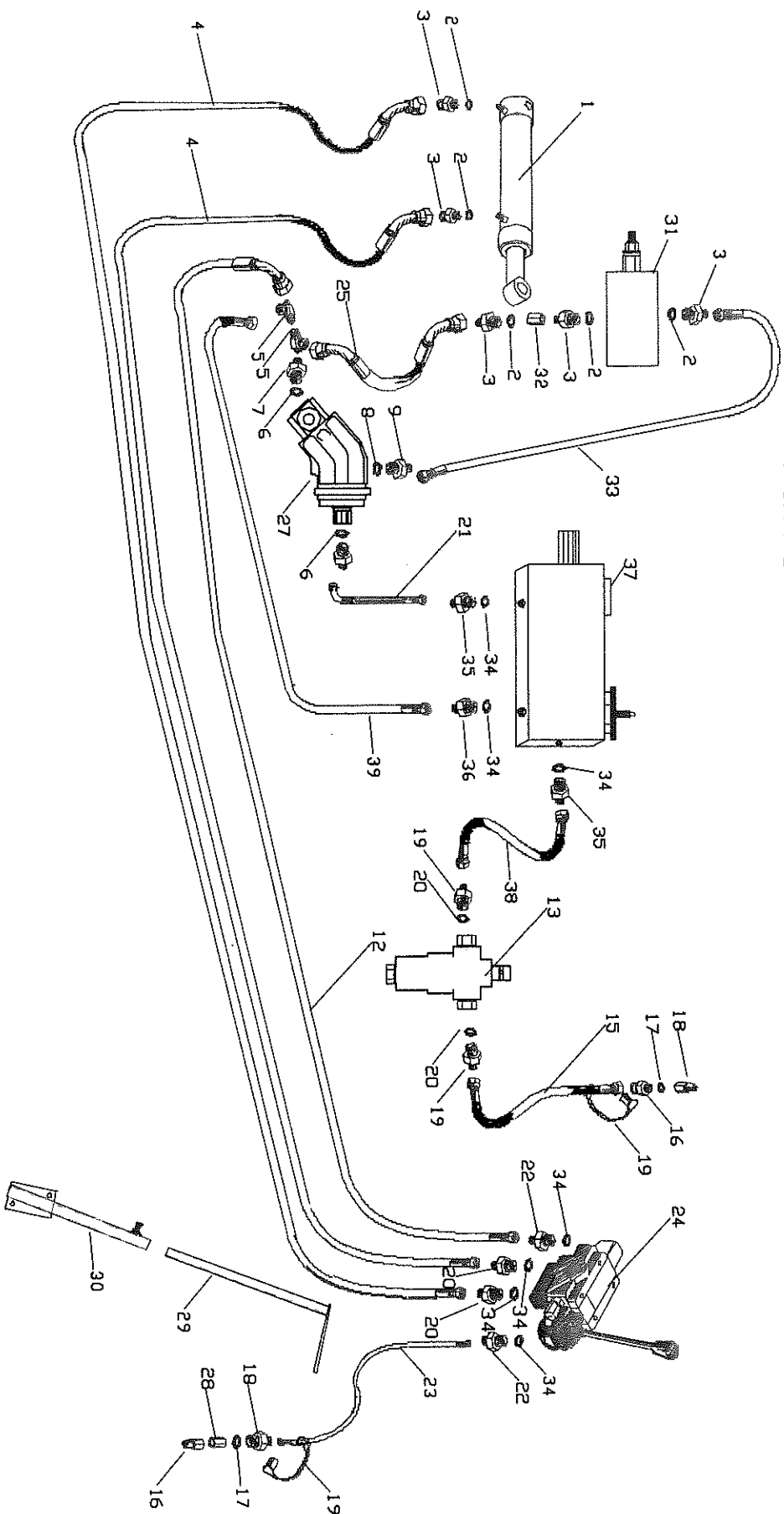
No.	Part No.	Description	Qty
1	SM10025	Set Screw	10
2	WM10SP	Spring Washer	10
3	002008	Intermediate Chute	1
4	002007	Shutoff Gate	1
5	753148	Gate Ram Pin	1
6	SM08016	Set Screw	1
7	353229	Shutoff Ram	1
8	BM20100	Metric Bolt	1
9	NM20SL	Nyloc Nut	1
10	WM20A	Plain Washer	2
11	385216	Hose	2

Hopper Grill Assembly



No.	Part No.	Description	Qty
1	598064	Hopper Grill Clamp Plate	6
2	BM08045	8 mm x 45 mm Bolt	12
3	WM08SP	8 mm Spring Washer	12
4	598065	Hopper Grill Plate	1
5	002006	Hopper	1

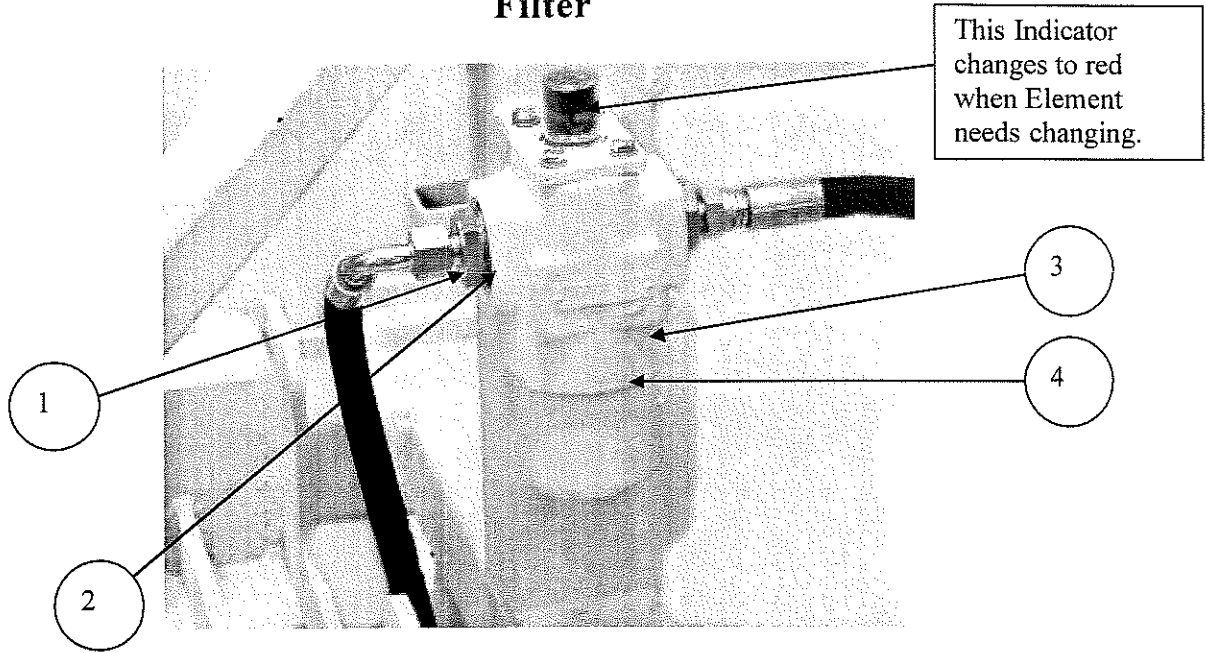
Hydraulics With Lock Valve For Tractors With One Spool Valve



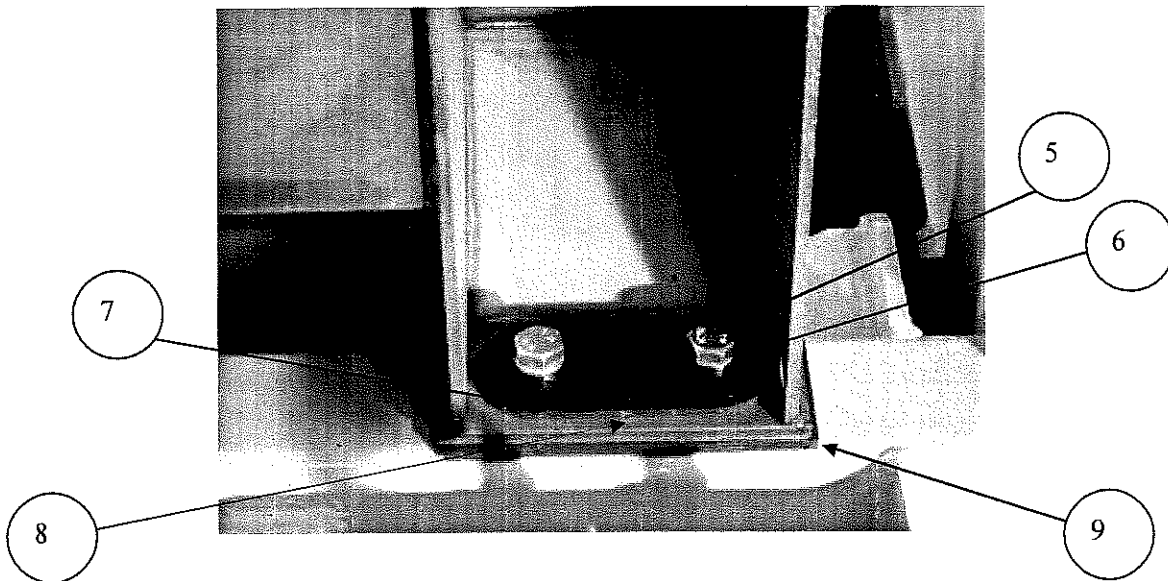
Hydraulics With Lock Valve For Tractors With One Spool Valve

Item	Part No.	Description	Qty
1	353229	Shutoff Ram	1
2	729014	Dowty Seal	2
3	386127	Equal Union	2
4	385204	Hose	2
5	386283	Branch Tee	1
6	729158	Dowty Seal	2
7	386280	Unequal Union	2
8	729166	Dowty Seal	1
9	386281	Unequal Union	1
10	386282	Unequal Union	2
11	385296	Hose	1
12	385297	Hose	1
13	002018	Pressure Filter	1
14	729095	Dowty Seal	2
15	385298	Hose	1
16	386064	QR. Coupling	2
17	729016	Dowty seal	2
18	386015	Unequal Union	2
19	386069	Dust Cap	2
20	386164	Unequal Union	2
21	385302	Hose	1
22	386014	Equal Union	2
23	385126	Hose	1
24	353215 C/W Lock Valve	Single Section Fitted With A Pilot Check Valve	1
25	385300	Hose	1
26	386236	Adapter	1
27	353308	Motor	1
28	386265	Non Return Valve	1
29	002030	Upper Valve Bracket	1
30	002029	Lower Valve Bracket	1
31	353239	Case Drain Relief C/W Cartridge	1
32	386179	Non – Return Valve	1
33	385291	Hose	1
34	729015	Bonded Seal	7
35	386014	Equal Union	2
36	386184	Adaptor	1
37	353240	Pressure/Flow Compensator	1
38	385301	Hose	1
39	385302	Hose	1

Filter

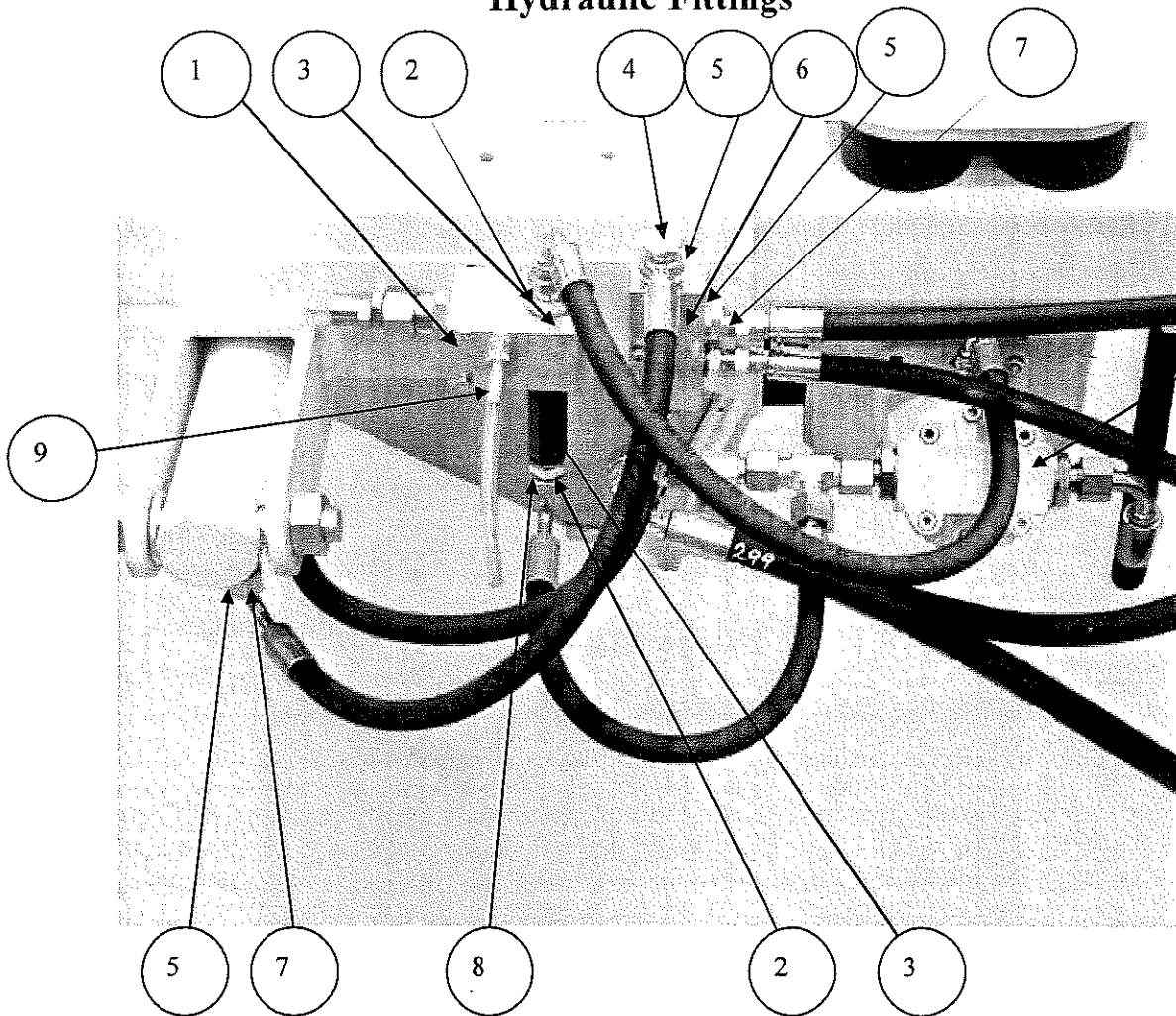


Hopper Mount



No.	Part No.	Description	Qty
1	386282	Unequal Union	2
2	729095	Bonded Seal	2
3	002018	Pressure Filter	1
4	386278	Pressure Filter Element	1
5	SM12035	12 mm x 35 mm Set Screw	8
6	WM12SP	12 mm Spring Washer	8
7	598068	Hopper Bracket Clamp	4
8	598069	Bracket Clamp Vibration Rubber	4
9	700104	Hopper Mounting Rubber	4

Hydraulic Fittings

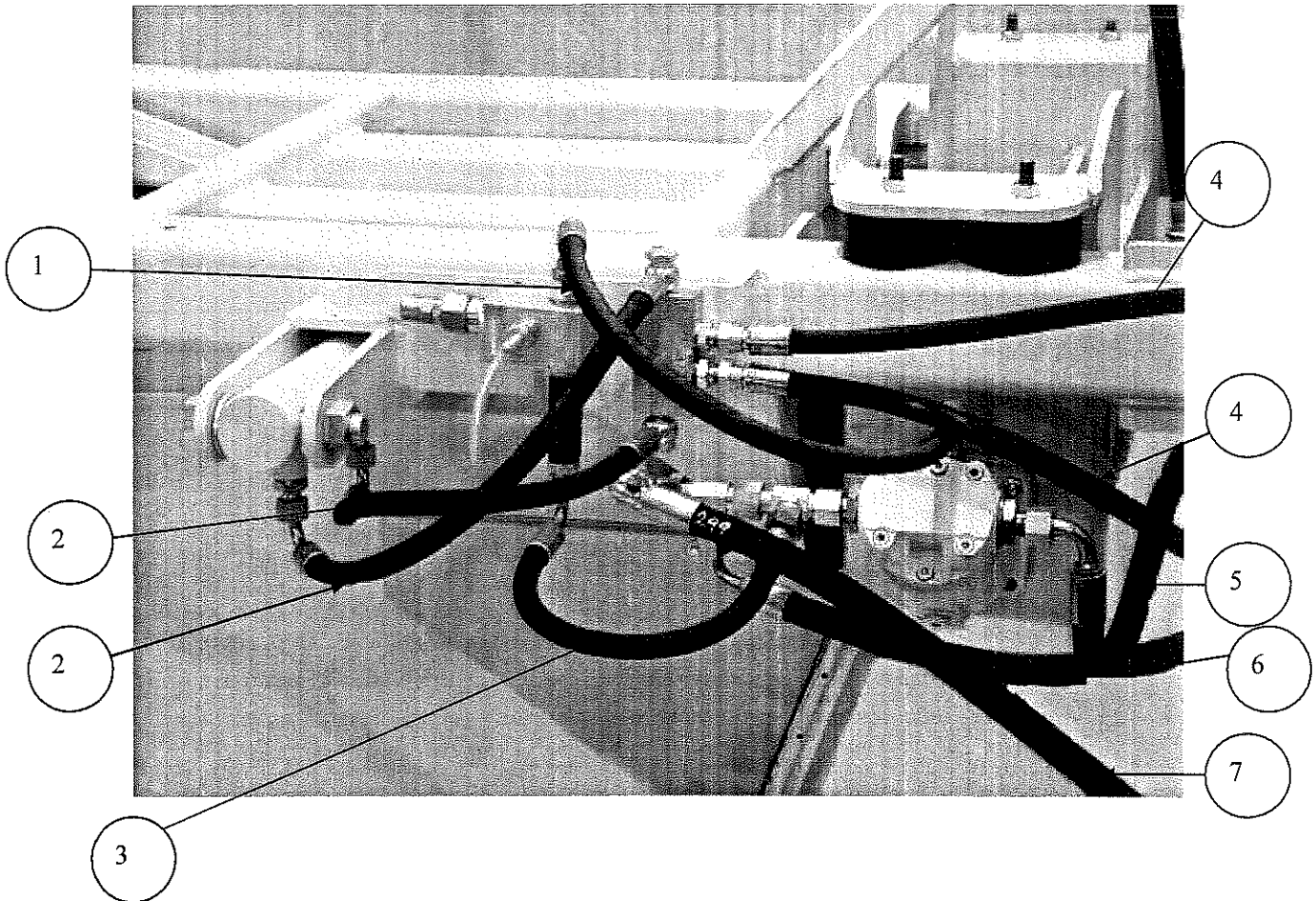


For
Motor
Fittings
See Page
3-15

No.	Part No.	Description	Qty
1	353239	Case Drain Relief Valve C/W Cartridge	1
2	386164	Unequal Union	2
3	729015	Bonded Seal	2
4	386272	Banjo Bolt	2
5	729014	Bonded Seal	4
6	353223	Lock Valve	1
7	386127	Equal Union	2
8	386179	Non Return Valve	1
9	386288	Hose Tail	1

This is for tractors with two or more spool valves

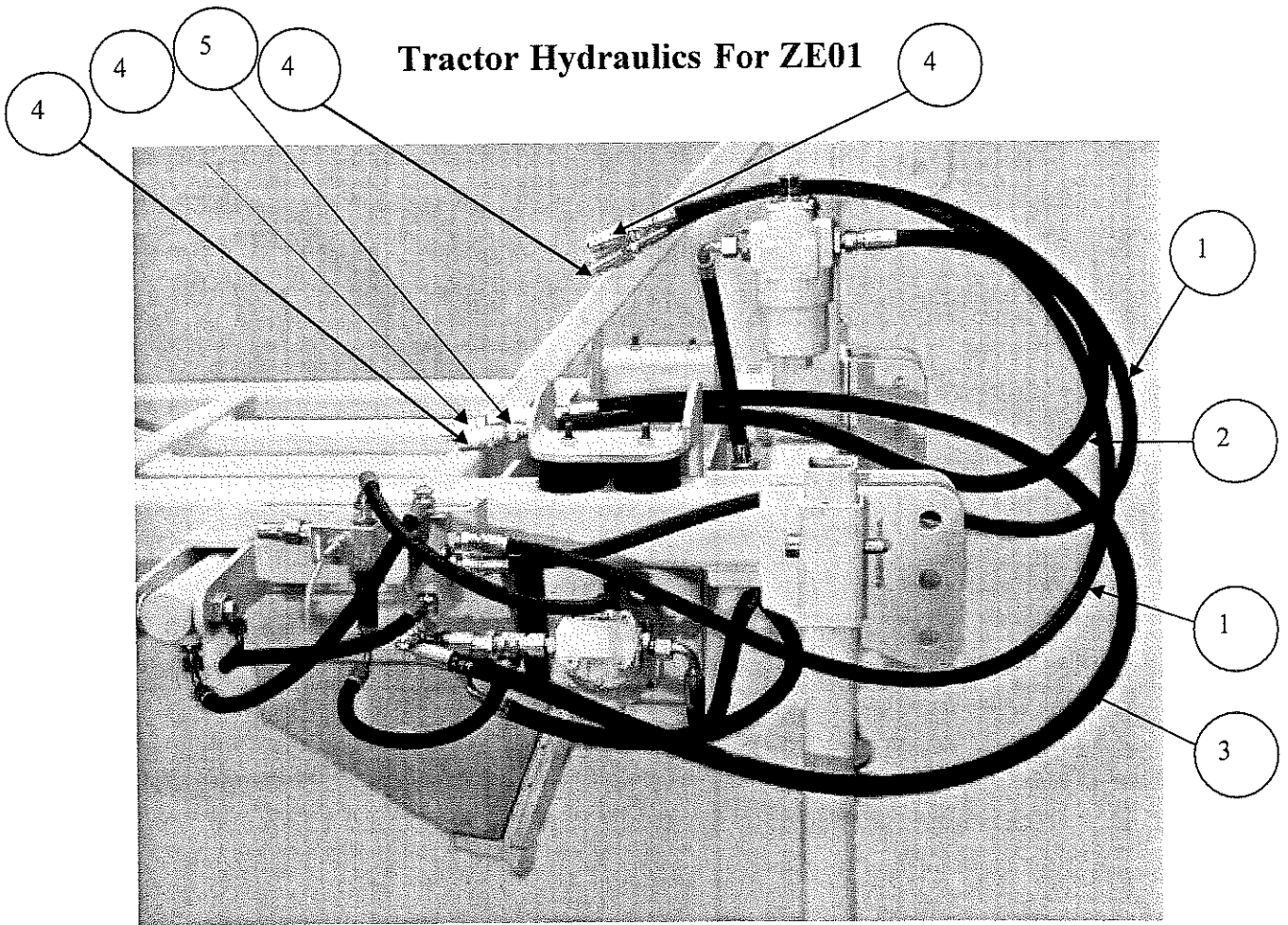
Hydraulic Pipes



No.	Part No.	Description	Qty
1	385291	Hose	1
2	385216	Hose	2
3	385300	Hose	1
4	385288	Hose	2
5	385301	Hose	1
6	385303	Hose	1
7	385299	Hose	1

This is for tractors with two or more spool valves

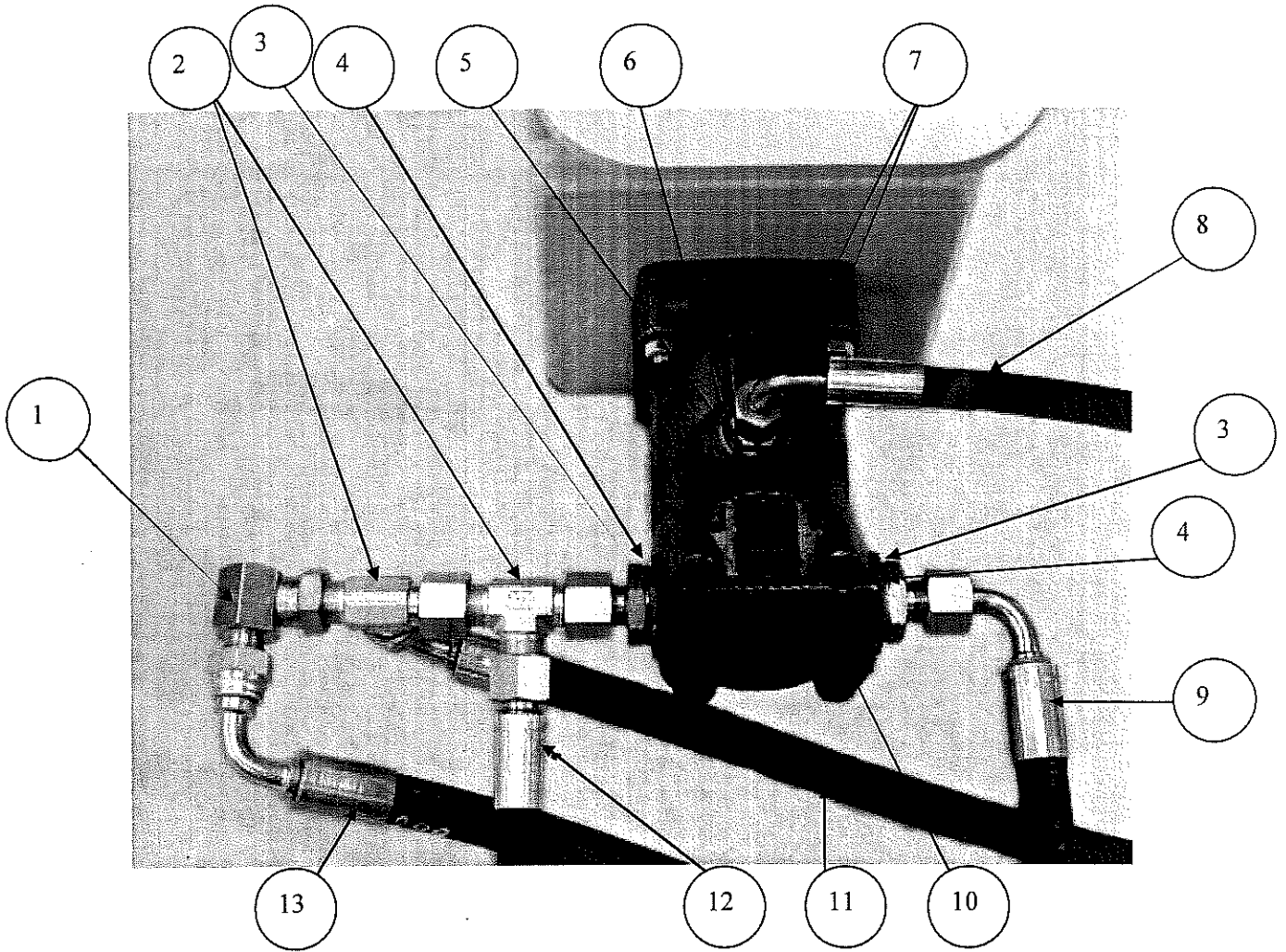
Tractor Hydraulics For ZE01



No.	Part No.	Description	Qty
1	385288	Hose	2
2	385298	Hose	1
3	385299	Hose	1
4	386064	Quick Release Coupling	4
5	386265	None Return Valve	1

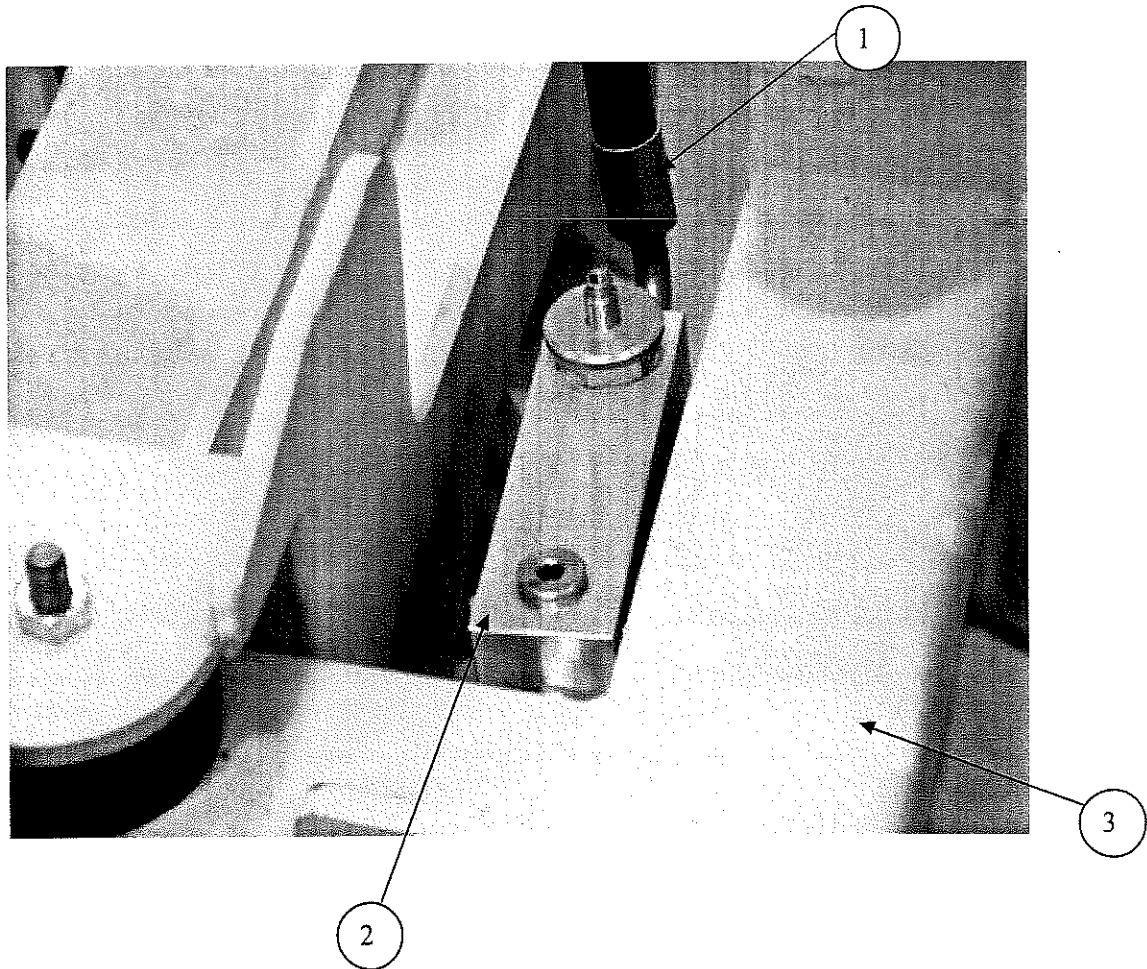
This is for tractors with two or more spool valves

Motor Fittings



No.	Part No.	Description	Qty
1	386284	Elbow	1
2	386283	Tee	2
3	386280	Unequal Union	2
4	729158	Bonded Seal	2
5	729166	Bonded Seal	1
6	386281	Unequal Union	1
7	598053	Motor Spacer	2
8	385291	Hose	1
9	385301	Hose	1
10	353308	Hydraulic Motor	1
11	385303	Hose	1
12	385300	Hose	1
13	385299	Hose	1

Flow Control



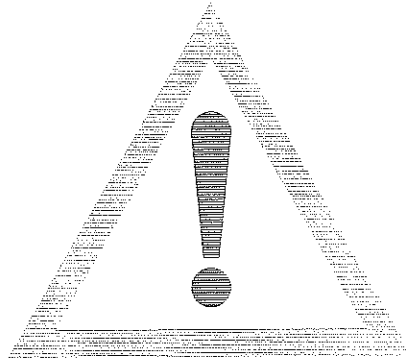
No	Part No.	Description	Qty
1	385301	Hose	1
2	353240	Flow Control Valve	1
3	002000	Mainframe	1

The Flow Control Valve (353240) is factory set and should not be adjusted.

This compensator valve is mounted on the mainframe below the filter (002018 page SBSEC-3-11) behind the frame front beam.

The blade speed has been factory set to 1600 Rpm by means of value xyz. This value should never be readjusted.

Different soil conditions on varying filling materials may require blade oscillation speeds of less than 1600 Rpm. This may easily be achieved by adjusting the revolutions of the tractor engine by means of the throttle.



Section 4:

Wheeled Sandbander Maintenance

ATTACHMENT OF SEMI-MOUNTED SANDBANDER TO TRACTOR

1. Fit counterbalance weights to front of tractor (These should be minimal but still required in medium to heavy going with lightweight tractors).
2. Check that the hose connectors on the Sandbander match those on the tractor.
Note: Some tractors have hydraulic valves fitted that switch the hydraulic oil supply from the three point linkage controls to external services. This system is not suitable for the Sandbander as Blade Motor must have constant supply whilst still controlling the raising and lowering of the Sandbander.
3. Remove the adjustable top link from the tractor as it will not be required.
4. Connect the 2-point linkage arms to the Sandbander Stabiliser Assembly. Raise the Sandbander slowly on the 2-point linkage arms. Check that it is clear of the tractor rear window if open. Raise the Sandbander on the tractors lift arms to the fully raised position. Raise and pin the trencher support legs.
5. Connect the hydraulic hoses.
6. Raise the Sandbander rear wheels fully and check the operation of the gate and motor controls.
7. Adjust the check chains on the tractor lower linkage arms so that the Sandbander, the top link, and the tractor are all in line. Leave about 50 mm of sideways movement both sides of centre.
8. SPECIAL NOTE: ALL OTHER SETTINGS AND PARTS ARE AS STANDARD ZE01 AND ZE02

IMPORTANT SPECIAL NOTE:

DUE TO THE HIGH PERFORMANCE OF THE SANDBANDER HYDRAULIC MOTOR, WHICH IS A BENT AXIS PISTON TYPE WITH CASE DRAIN.

THE FOLLOWING SHOULD BE OBSERVED:

1. THE RETURN OIL FLOW SHOULD NOT BE RESTRICTED
2. THE TRACTOR SPOOL VALVE SHOULD PREFERABLY BE SINGLE ACTING
3. ANY TRACTOR HAVING SPECIAL DOUBLE ACTING SEMI LOCKING SPOOL VALVES MUST BE SET TO SINGLE ACTING

TO DATE ONLY NEW HOLLAND TNDA SERIES MAY BE A PROBLEM AND CAN BE SET TO SINGLE ACTION (CHECK TRACTORS HANDBOOK)

THERE ARE SAFETY FEATURES ON THE SANDBANDER TO PREVENT DAMAGE TO THE HYDRAULIC MOTOR.

THERE IS A PRESSURE RELIEF VALVE ITEM 1 PAGE SBSEC3-12

IF OIL IS COMING FROM THIS VALVE THEN PLEASE CONTACT AFT TRENCHERS OR YOUR TRACTOR DEALER.

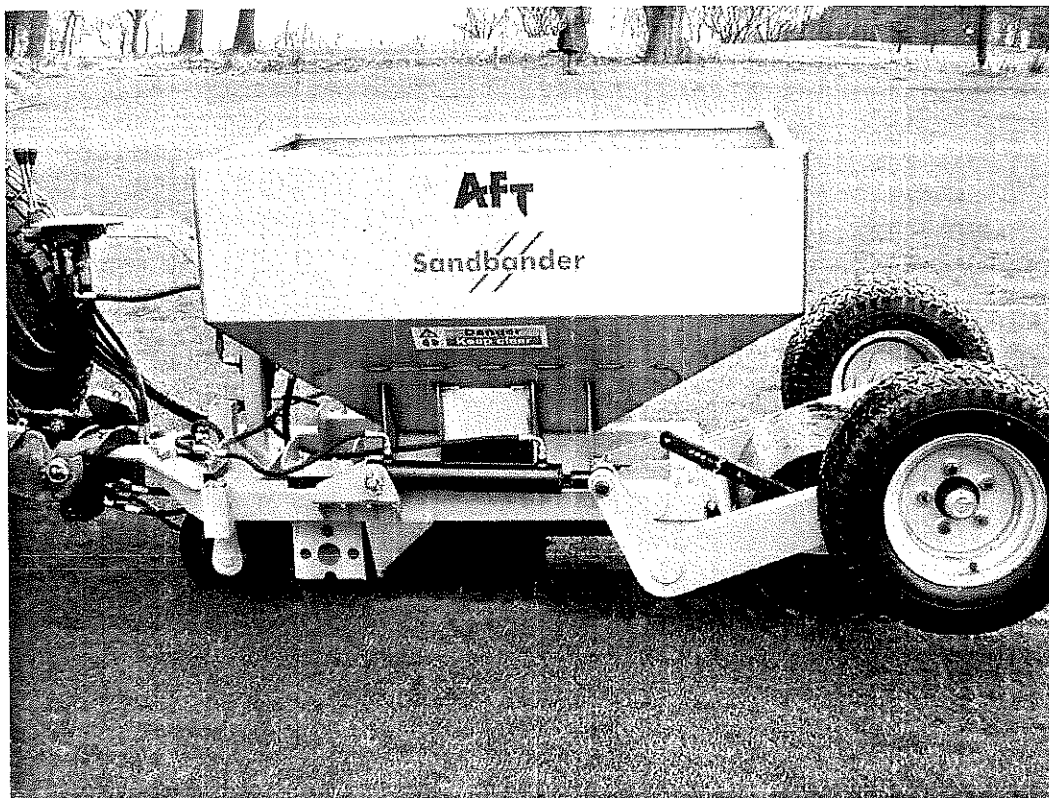
IN MOST CASES THIS COULD BE CLARIFIED WHEN YOU TAKE CHARGE OF YOUR NEW SANDBANDER.

USING THE SEMI MOUNTED SANDBANDER

With the Sandbander mounted to tractor Lift Arms, Sand Bander Wheels Fully down and filled with sand to the capacity of the hopper. To start the sandbanding operation lower the machine to the ground using the tractors lift arms, start the motor, when the blade has made contact with the ground, whilst moving forward open the gate via the control valve or tractor spool valve. Then proceed to lower the machine down onto the Depth Wheel by raising the carrier wheels fully up; this will then clamp the stabiliser assembly (on the lift arms) and keep the machine stable and vertical when working.

After a metre or so the following should be checked:

1. The sandbander frame is parallel to the ground at all times, if not then adjust the tractor lift arms height.
2. The depth wheel is set to your required trench specifications, via the wheel adjuster (002017 see page SBSEC-3-4B).
3. The sand control plate (598048 see page SBSEC-3-4B) is adjusted to adequately fill the trench so that it remains level after the depth wheel has compressed the sand band.



Once running level has been achieved (as above), then the machine will float over uneven ground and maintain weight on the depth wheel and the tractors lift arms.

After a run, exit the trenching operation by shutting the sand gate using the control valve, raise the tractors lift arms approximately half way.

Stop the blade motor, lower the carrier wheels down fully, this will unclamp the stabiliser assembly, then raise the tractors lift arms fully.

NOTE: The Stabiliser Assembly serves a pacific purpose. Firstly to keep the machine upright (CLAMPED POSITION) in work especially on slight side hills.

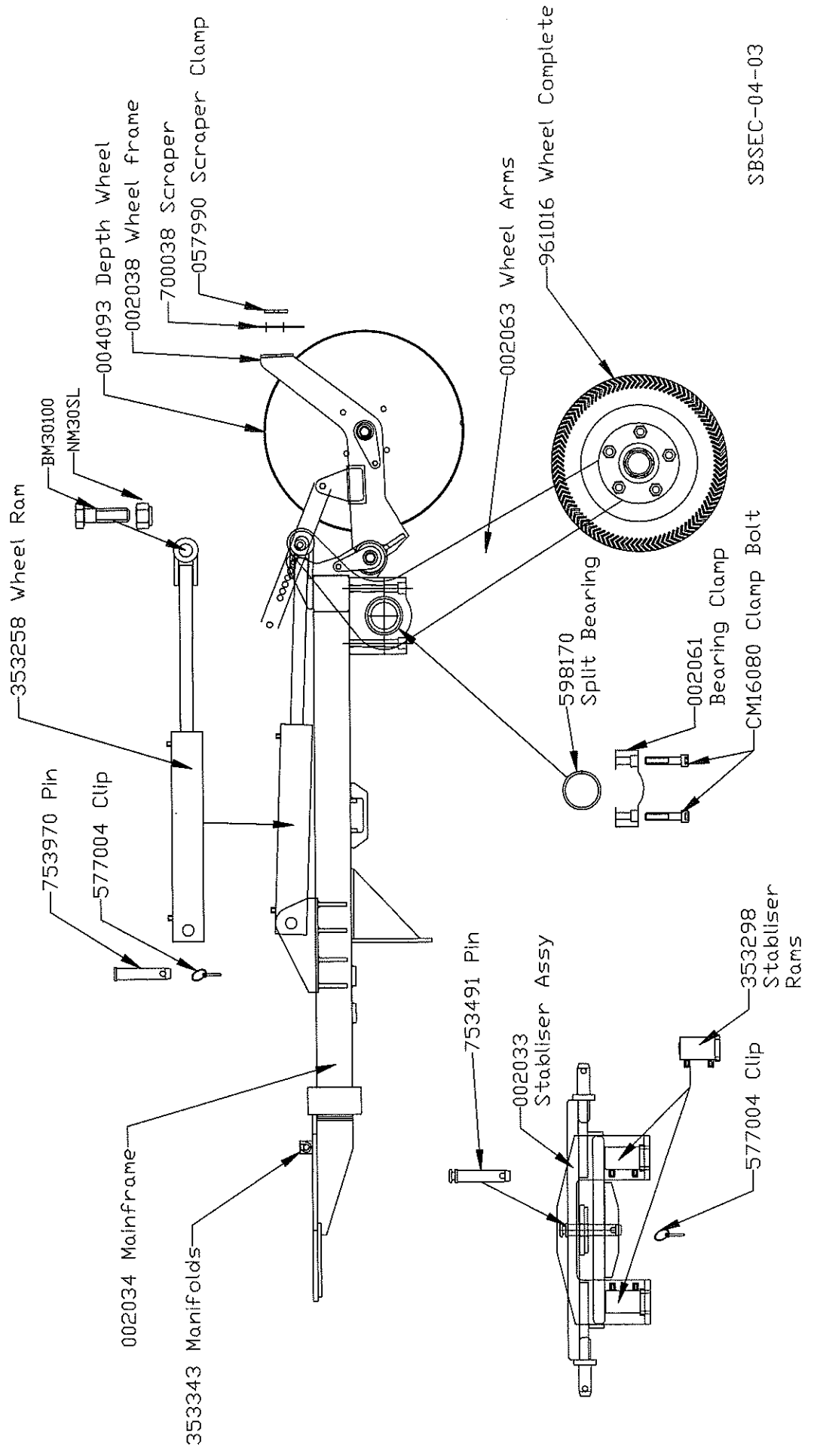
Secondly to allow movement over uneven ground when travelling and turning (UNCLAMPED POSITION)

REMOVING THE SEMI MOUNTED SANDBANDER FROM THE TRACTOR

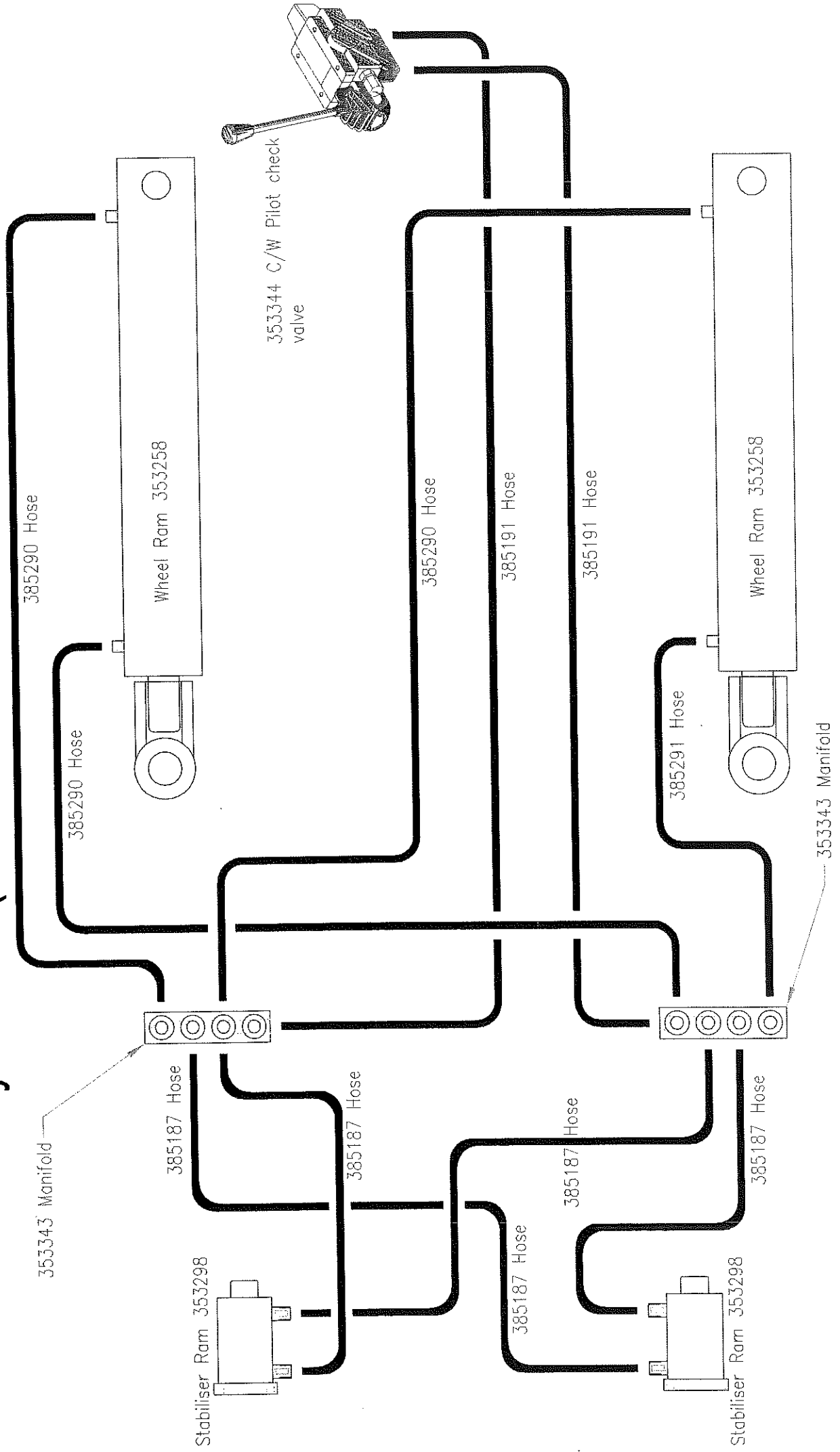
1. Make sure the tractor lift arms raised and the carrier wheels down fully (Stabiliser Unclamped).
2. Lower and pin the trencher support legs.
3. Lower the Sandbander onto its legs by lowering the tractors lift arms .
4. Make very sure that the hydraulic valve levers are in neutral. Disconnect the hydraulic hoses and place in a secure position off the ground. The built in hydraulic pilot checks will keep the carrier wheels in position.
5. Slacken the check chains if necessary and disconnect the tractors lift arms from the Stabiliser Assembly.
6. Drive the tractor carefully away from the Sandbander making sure that everything is free. Note: If you intend to transport the machine we recommend that before the Sandbander is removed from the tractor the Carrier Wheels are blocked either side with wood, this increases the machine's stability.



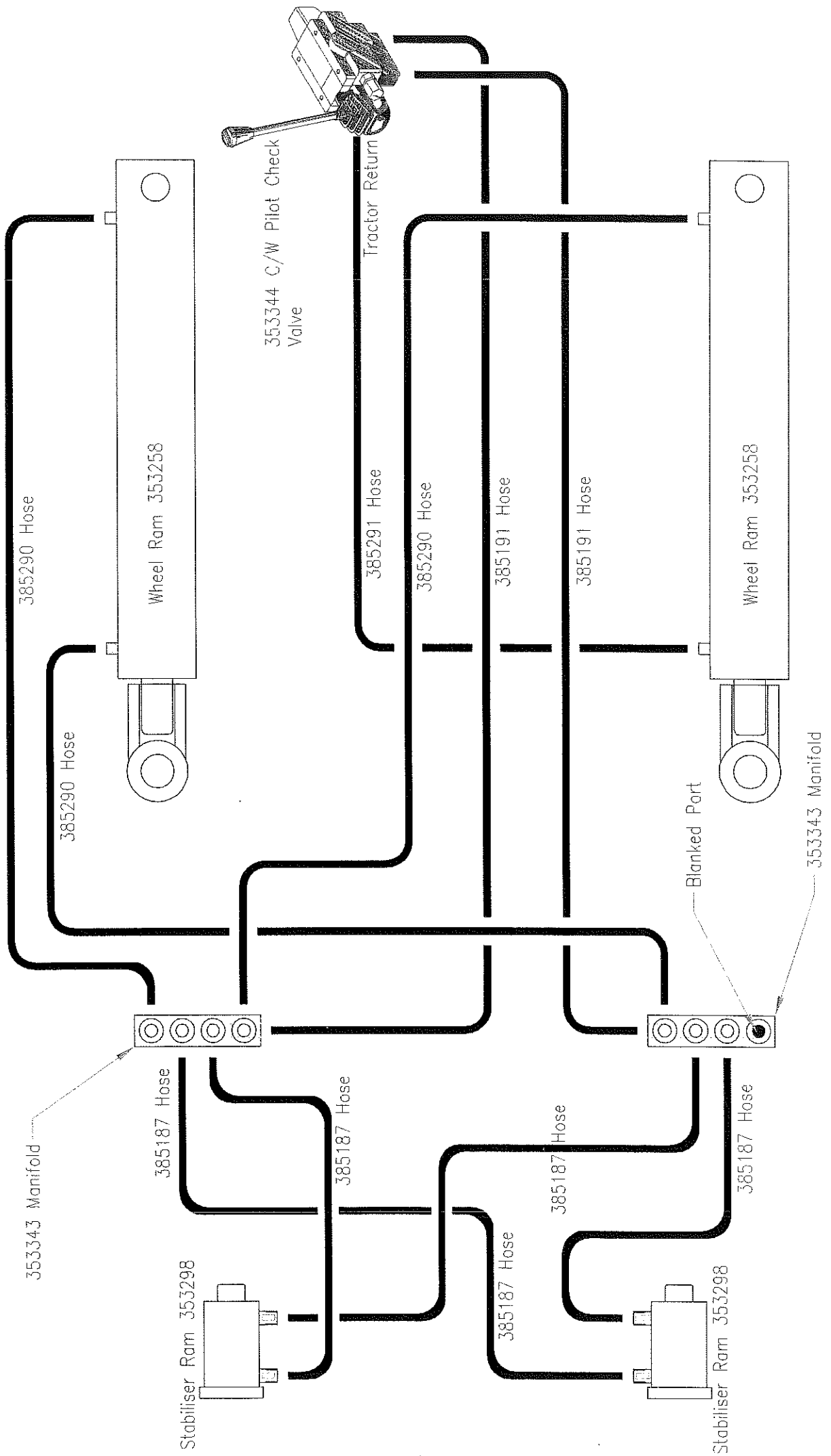
ZE03 And ZE04 Wheeled Sandbender Additional Parts



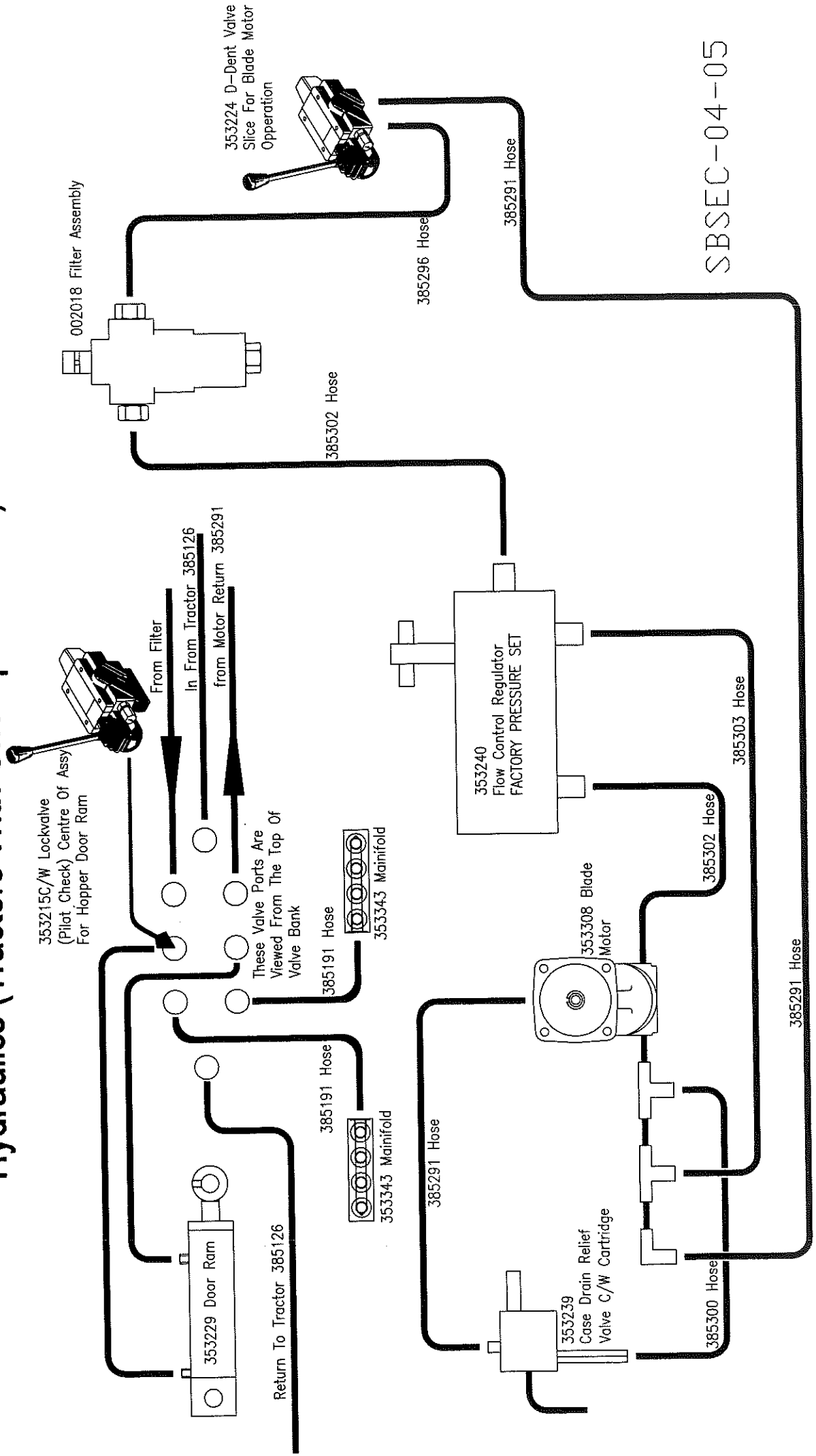
ZE04 Sandbander Wheel And Stabiliser Hydraulics (Tractors With One Spool Valve)



ZE04 Sandbender Wheel And Stabiliser Hydraulics ((Tractors With One Spool Valve) And Low Oil Flow (Less Than 30 Ltrs))



ZEO4 Wheeled Sandbander Gate And Motor Hydraulics (Tractors With One Spool Valve)



SBSEC-04-05

EC DECLARATION OF CONFORMITY

A F T Trenchers Ltd
16/17 Addison Road
Chilton Industrial Estate
Subury, Suffolk
CO10 2YW

Declares that:-

Trenching attachment type AFT SANDBANDER

Serial No.

Manufactured:

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Designed to attach to agricultural style tractors between 15 and 37 kW (20 and 50HP) conforms with:

- The essential Health and Safety requirements of the Supply of Machinery (Safety) Regulations 1992 (SI 1992/3073) as amended (SI 1994/2063)
- BS EN 474-10: 1998 in as far as it applies to a trenching attachment
- EC machinery directive 89/392 EEC (as amended).



Signed by H M Jurgens
Managing Director