



OPERATOR MANUAL

(H24) FRONT END LOADER

OPERATOR MANUAL

FRONT END LOADER

- **24 HST**

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IDENTIFICATION

The model and serial number is stamped on a plate on the outside of the right hand loader arm. Please quote both numbers when ordering spare parts or accessories.

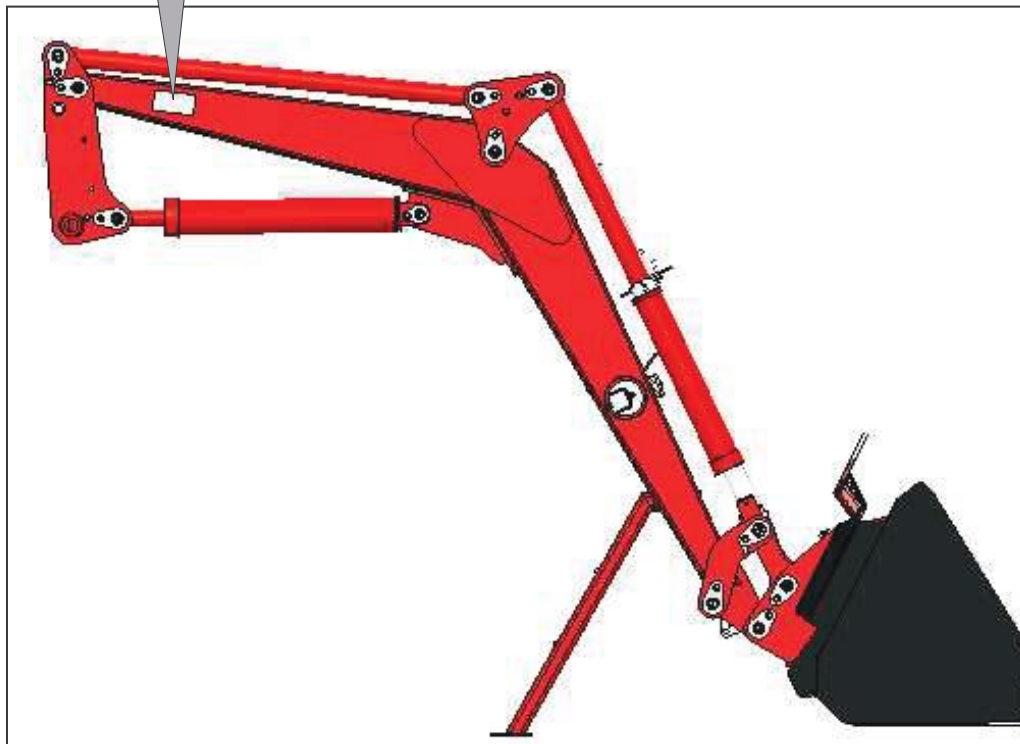
Loader Serial No: _____

Date Purchased: _____

Authorised Dealer: _____

Tractor Make & Model: _____

Loader Serial Number Plate



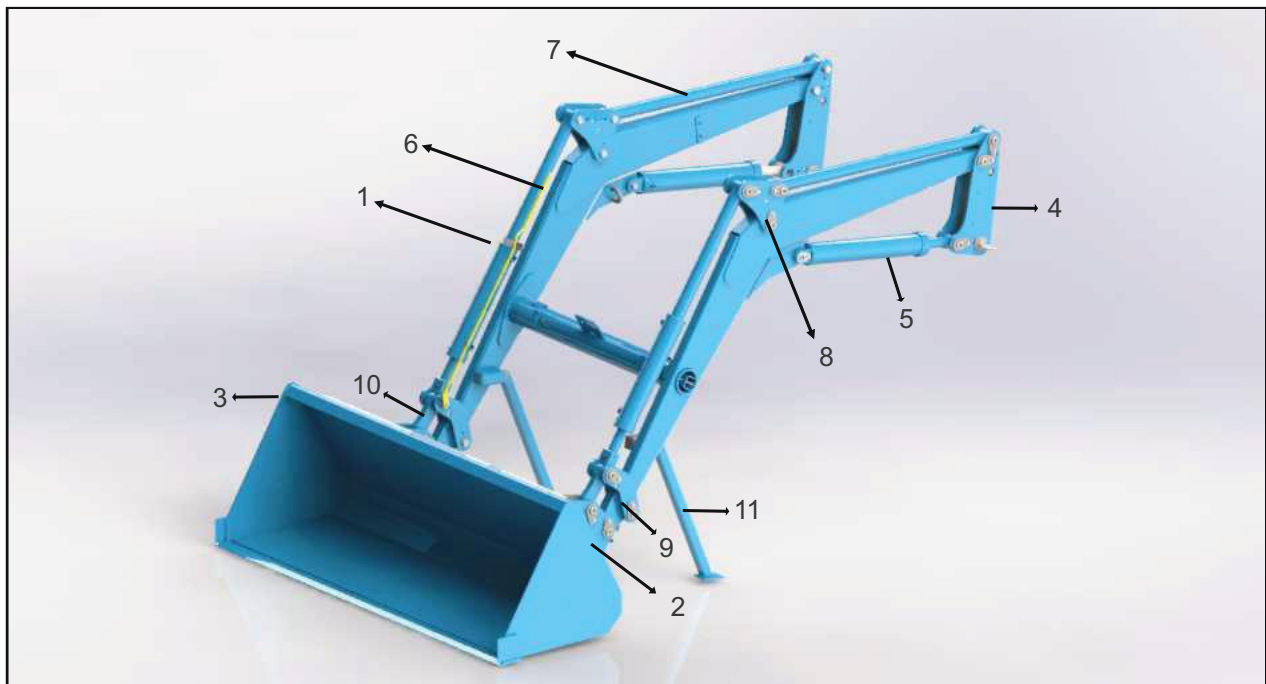
Location of Loader Serial Number

DESCRIPTION OF FRONT END LOADER

The Frontend Loader is an attachment to a tractor, used for lifting & moving the loads. The Frontend Loader is activated by hydraulic cylinders powered by tractor's hydraulic system and controlled by the driver. The Frontend Loader is attached to or detached from the tractor quickly & effortlessly by Quick change system. The support legs ensure that the detached Frontend Loader is stable. The implements are connected to the Frontend Loader via quick change frame to enable fast and safe implement change.

The Frontend Loader consists of:

1. Bucket cylinder
2. Quick change frame
3. Bucket
4. Post cap (drive-in system for subframe post)
5. Lifting cylinders
6. Level Indicator
7. Self leveling rods
8. Middle rockers
9. Front rockers
10. Front Link
11. Parking legs



SAFETY INSTRUCTIONS

TO AVOID ACCIDENTS AND INJURY, READ AND UNDERSTAND THESE INSTRUCTIONS

This machine is inherently dangerous to children and persons unfamiliar to its operation. The operator should be a responsible adult and be familiar with the operation of this machine. Warnings are used in this manual to avert bodily injury & machine damages. Always read and comply with these warnings.



This safety alert symbol appears with most safety statements. The safety alert symbol means attention, becomes alert, the operator's safety is involved! Please read and strictly observe the message that follows safety symbol alert.

 **DANGER** - Indicates hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** - Indicates a hazardous situation which, if not avoided could result in death or serious injury.

 **CAUTION** - Indicates a hazardous situation which, if not avoided could result in minor or moderate injury.

NOTICE - Indicates a situation which can cause damage to the loader, personal property and/or the environment or cause the equipment to operate improperly.

IMPORTANT - Means that implement or property damage could occur if instructions are ignored.

NOTE - Provides some useful information.

SAFETY INSTRUCTIONS



WARNING - READ AND FOLLOW ALL INSTRUCTIONS IN THE OPERATORS MANUAL BEFORE ATTEMPTING TO OPERATE THE TRACTOR AND THE LOADER. FAILURE TO COMPLY WITH THE INSTRUCTIONS MAY RESULT IN DEATH OR PERSONAL INJURY.



Danger - The loader was built to be operated according to the rules for safe operations in the Operator's manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. To help prevent accidents, read and understand the following precautions before operating the tractor and the Loader.

Failure to observe the following safety instructions could result in serious injury or death.

Precautions before operating the Loader



- Understand the performance and limitations of the tractor and loader. Carefully study the Operator's Manual and learn the instructions in the operator manual before operating or servicing the tractor and loader. Keep the Operator manual in easily accessible place.
- Strictly follow the precautions given in DANGER, WARNING and CAUTION safety decals attached to the loader. Replaced safety decals in good condition and replace the damaged or missing safety labels.
- Make sure that the person who operates the tractor and loader studies the Operator Manual before operation. Know the controls and how to stop the tractor.
- Check overhead clearances carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving a building or any situation when ROPS (Roll over protection structure) may be stuck which could result in serious injury.
- Make sure that there is no person or obstacles under or around the tractor and the loader before and during operation.
- Do not operate tractor and loader under influence of Alcohol, drugs, medicine or controlled substance or when not fully physically fit.
- During operation and performing service work
 - Wear close knit cloths.
 - Do not wear loose clothes or jewellery since may get caught by a moving part of loader and an accident can happen.
 - Do not wear short pants or cut off pants which do not provide protection against flying debris.
 - Do not in any circumstance, operate the loader with bare feet.
 - Do not wear sandals and sneakers

SAFETY INSTRUCTIONS

- Wear additional protection including non-slip foot safety boots or shoes, protective gloves and gloves etc as appropriate or required by local laws and regulations.
- Wear ear protection in a noisy environment to prevent hearing damage and to reduce operator fatigue.
- Avoid allowing passengers on any portion of tractor or loader.
- Always remain seated in the operator seat while operating the tractor and loader.
- Make sure that the brakes and other mechanical and hydraulic components are properly adjusted and do not have excess wear.
 - Immediately replace all excessively worn out or damaged components.
- At regular intervals, check all nuts, bolts and screws are properly tightened as recommended.
-  **CAUTION:** Always keep the tractor clean. Dust, grease or grass clippings accumulated on tractor can lead to fire accidents, or personal injury.
- Use the handhold and running board steps when going on and off the tractor to prevent accidental falls. Keep the running board step clear of mud and debris.
- **IMPORTANT** - Enter left side of tractor since the right side of tractor loader control valve may create obstacle for entry and exit.
- Only use loader attachments that satisfy the requirement in the Operator's manual or are approved by Yanmar tractor dealer.
- Make sure that the attachment is properly installed, properly adjusted and is in good operating condition.
- When using tractor, Install appropriate weights in the rear of the tractor to prevent tractor from tipping over. For details refer "Rear Ballast" under "Operation" chapter 5.
- Do not under any circumstances, modify the loader. Modification can deteriorate the performance and/ or safety of loader, possibly leading to personal injury or property damage.
- The loader is only compatible to Solis 24 model. Do not attempt to use the loader on any other tractor.

Safe practices for operating the loader

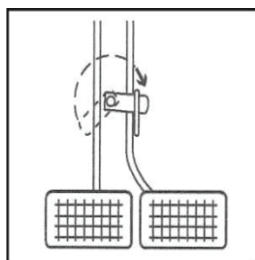
1. Working with the loader



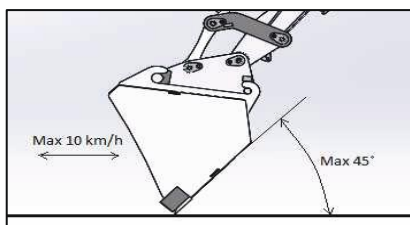
- Do not walk or work under a raised loader unless it is securely blocked.
- Never allow anyone to get under the loader bucket or reach through the booms when the bucket is raised.
- Make sure there are no people, livestock or pets around the tractor during operation.
- Do not use the loader as work platform.
- Do not use the bucket in the dumped position for grading or bulldozing. This imposes severe loads on the bucket cylinders which will often cause bending of the rods.
- Never use the loader to lift or carry people or its attachments.
- Never leave your loader unattended with the engine running.
- Keep the bucket as low as possible when travelling for maximum stability.

SAFETY INSTRUCTIONS

- Always handle big or unstable loads with extreme care and caution.
- Do not use a chain, cable or rope to lift or pull the loads with loader which can lead to tractor roll over or can damage the tractor. This may cause serious injury or death.
- During turning, be aware of surrounds and ensure there is enough space to turn.
- Avoid loose fills, rocks or potholes which can be dangerous to the operation of loader.
- Operate only in daylight and good artificial light for proper visibility.
- Always comply with local lighting and marking requirements.
- Cross check local utilities before beginning work. Know the location and avoid contact with all underground cables, pipelines, overhead wires or any hazard in working area.
- Always exercise great care when attaching or detaching the loader and its implements.



- If you have questions regarding the operating manual, contact your nearest Yanmar Dealer.
- Connect the brake pedals of the tractor together. Never use separated brakes if a front loader is mounted.
- Before leaving the operator seat, always lower the operator boom to ground, engage the parking brake securely, shut off the engine and remove the key.



- When levelling do not drive faster than 10 km/h (6.3 mph). In this process, tilt the implement to maximum of 45 degrees.

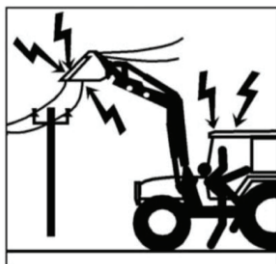
2. How to avoid accidents

- Observe due care while turning the tractor or travelling over inclined surface. Reduce the tractor speed while turning.
- Always use recommended counter weights of right value.



CAUTION - Observe caution while dropping or lifting loads, sudden dropping or lifting may cause loads to fall or the bucket to hit the ground at much higher speeds. Observe caution while travelling on slopes.

- Use common sense and care to balance the overall weights and its being evenly distributed to have loader and tractor stability.
- Carry loads close to ground.
- Never overload.



- Avoid hanging objects, power lines above and below the ground (underground cables) for possible life risks.
- Do not leave the operator seat if any part of the tractor or loader is in contact with power lines. It may cause electric shocks which could be fatal and may even lead to death or personal injury.
- Always keep safe distance from electrical lines

SAFETY INSTRUCTIONS



- Be watchful of falling objects.
- Be watchful to adjust the bucket manually while lifting to keep it level ground or level to ground to avoid roll back of lifted material.
- Avoid carrying big round bales with bucket as attachment.
- Be alert and cautious while handling large and unstable loads since it may roll back from boom to operator.



- Ensure that no one is positioned below or within danger zone of loader.

- Ensure that the front tires are inflated to the prescribed pressure for load operation as specified in the operating manual of the tractor.
- While traveling on road, please ensure that SMV (Slow moving vehicle) sign is placed in rear of the tractor in visible condition.
- Follow safety instructions on operating the tractor with loader while travelling over roads as per local traffic rules and regulations.



- Observe extreme caution while working on slopes / inclined surfaces.
- Never drive tractor with loader transverse to slope with raised loads. Do not drive across the slope.
- Use low range gears while traveling over a slope.
- Avoid sudden braking and keep all movements slow and gradual.

- Carry loads which are not wider than the bucket.
- Ensure that the lights and reflectors of the tractor are not covered by the Frontend Loader when driving on public roads.

SAFETY INSTRUCTIONS

Precautions while servicing the loader

Before starting any work on loader, please ensure the followings,

- Tractor is placed on level ground.
- Parking brakes are engaged.
- All gears are in Neutral including PTO.
- The rear counterweights are in lower position.
- Engine is in shut off condition.
- Take out the ignition key.
- If loader is in raised condition, please ensure that it is properly secured and blocked to fall down.

Kindly observe due cautions while working with loader Hydraulic lines as,



- While disconnecting hydraulic lines, operate the control lever several times to release pressure in hydraulic lines.
 - The hydraulic lines carry high pressure. Any sudden leaks, loose pipes or connections can cause injury. Observe caution while repairing or replacing hydraulic lines.
- Do not mount the tractor using loader or bucket as jack since it may cause injury if accidentally lowered.
 - Wear safety gears like gloves, safety glasses, safety shoes while working with loader.

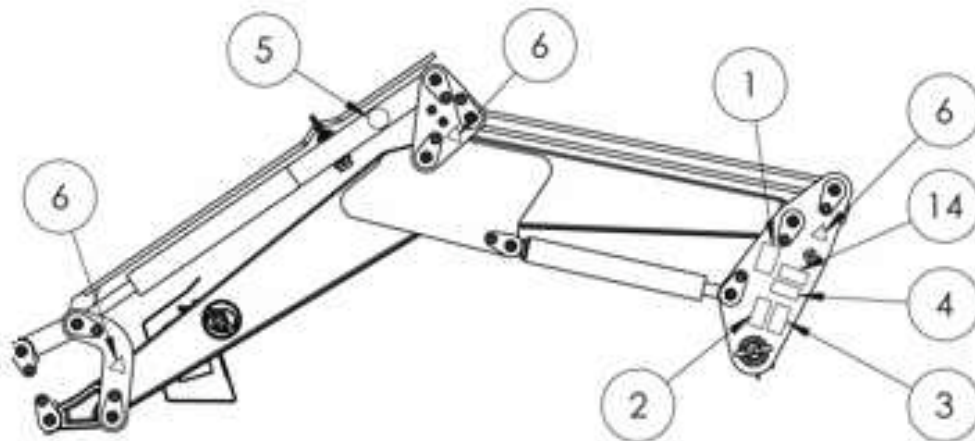


- Do not leave leaked pipes, connections unattended. Replace these parts with genuine spare parts only.
- Comply with the accident prevention regulations as well as the technical safety, occupational health, and road traffic regulations of the country where the Frontend Loader is used.

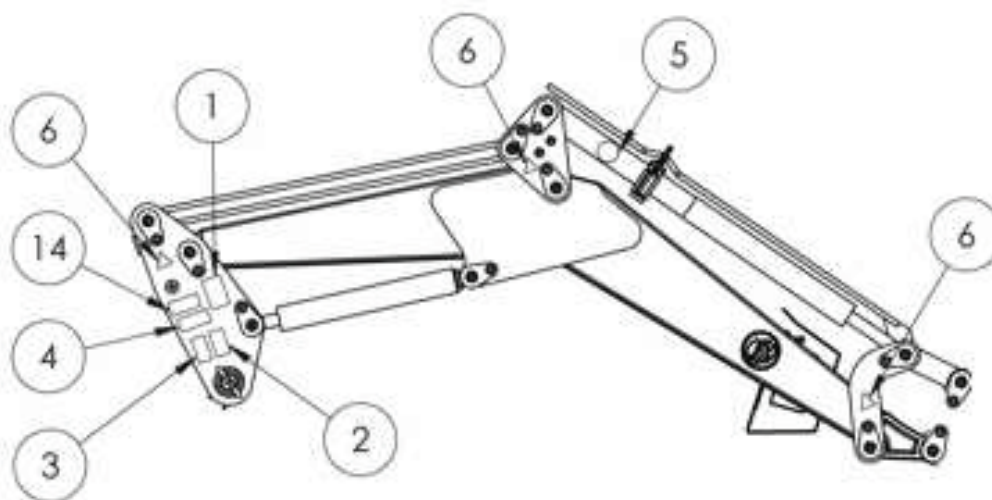
SAFETY INSTRUCTIONS

Safety decals location

Left Side View



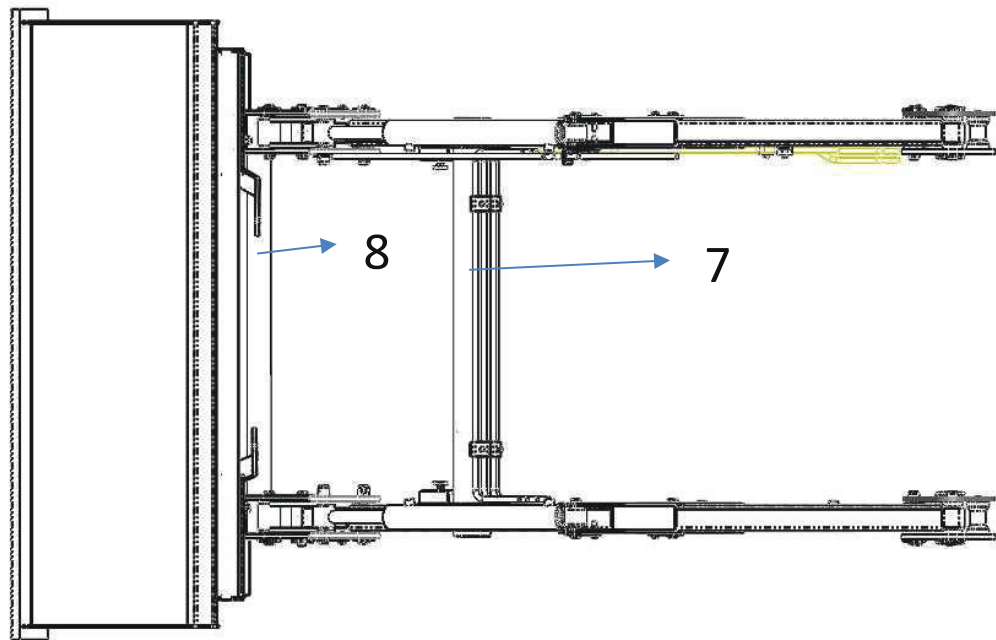
Right Side View



SAFETY INSTRUCTIONS

Safety decals location

Top views



1. Crushing hazard label

To avoid serious injury, operator should be cautious of the material or load being carried. It may fall.



SAFETY INSTRUCTIONS

2. Do not climb and carry passengers label

Do not operator loader or attachment with anyone in it. Operator should not allow or climb the loader.



3. Read the Operator Manual label

Read the operator manual



4. Stay clear of raised loader label

Operator or bystander should never stand under raised loader.



5. Lifting Point label

This decal points towards lifting point of loader by crane.



SAFETY INSTRUCTIONS

6. Pinch Point label

This operator or bystander should be careful of pinch point.



7. Warning label

- The safest method of performing maintenance on the tractor is to remove loader first.
- Install cylinder locks before performing maintenance under the raised arms. Failure to comply could result in death or serious injury.
- Empty loader bucket and place it in dump condition. Raise boom until boom channel can be positioned on cylinder rod then stop engine.
- Securely fasten lock with supplied tie to cylinder with curved end away from cylinder body.
- Slowly lower boom until boom is stopped.



8. Warning label

Operator must secure with the skid steer hitch pins, cotter and locks



14. Warning label

This product can expose you to chemicals which is known to the state of California to cause cancer and reproductive harm.

For more information got to www.P65Warnings.ca.gov



SAFE WORKING LOADS

SOLIS has undertaken a program of testing every model of loader supplied in order to determine Safe Working Load (SWL) limits. The SWL of your loader as stamped on the ID plate on the outside of the right hand loader arm along with the model and serial numbers.

This SWL applies to the loader fitted with the standard bucket. If any other SOLIS attachment is used, the attachment will have a similar ID plate attached to it with a revised SWL rating. This rating replaces the original bucket rating for that loader. Where a 4 in 1 bucket is fitted to the loader, the original SWL must be reduced by 10% to allow for the greater tare of the 4 in 1 bucket.

For any given loader, the SWL applies to the machine static, on a hard level surface. The SWL should be reduced according to the operational factors including speed, slope and terrain.

The lifting point in the standard bucket has been tested to comply with AS 2359/1. The pallet fork tines and round bale fork tines also exceed the requirements set by AS 2359/1.

If the loader is to be used to lift over people heads, hose burst valves must be installed to prevent a burst hose allowing the loader to drop suddenly

HYDRAULIC PRESSURE

The control valve supplied with your loader has had the pressure factory preset. Any and all warranties will be voided if the preset pressure is tampered with in any way.

Note:

It is also recommended that the rear wheels be set at the widest practical setting for extra stability.

OPERATION

OPERATE THE LOADER

When operating the loader, ensure that the engine speed of the tractor is appropriate for the work being performed.

The operator must be experienced enough to be able to operate the tractor at the appropriate speed. The procedures described below can prevent bucket spillage, as well as lengthen the service life of the loader.

IMPORTANT : Avoid damage!

- Do not attempt to operate the tractor at high speeds while the loader is attached to prevent followings,
 - Spilling the content of the bucket.
 - Placing undue strain on both the tractor and loader.
- When working in environment below Zero degrees, keep the engine under 1200 rpm until the oil temperature rises above Zero degrees.
- Check that the hoses are not twisted, sharply bent, kinked, frayed or pulled too tightly. Replace any damaged hose immediately.
- While operating on loose soil, slippery surfaces and on descending slope, and to prevent damage to tractor's transmission,
 - Engage 4 Wheel drive (if equipped) when additional traction is needed.
 - Deactivate the 4 Wheel drive when travelling on firm and flat surface and when travelling at high speed.
- Check the hydraulic oil level, and top up as required in accordance with the tractor instructions.
- Add wheel ballast or rear weight for stability.
- Check all nuts, bolts, pins etc for proper fit and tightness.
- Use front tires of the same size and keep equal pressure in both or Increase the pressure of the front tires to the pressure recommended.
- Use the same sized rear wheels and maintain equal pressure in them.
- Adjust the Front and rear wheel track to the widest practical width.

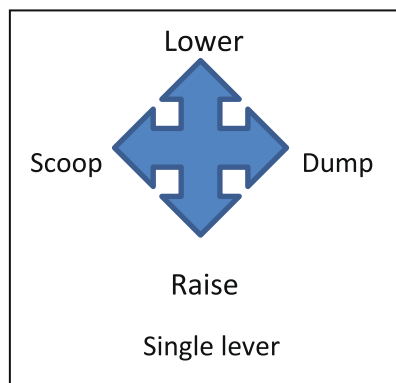


WARNING - To prevent roll over and accidents

- Remove the loader from the tractor if another implement is to be operated on inclined surface.
- Remove the rear mount mower or other rear implements from the tractor before operating on rough or uneven surfaces.

OPERATION

Using the implement control lever



- The tractor's implement control lever is located at the front left corner of operator seat. The preceding lever is used to control the movements of the loader.
- If control lever remains in Neutral position by default. If released, it will automatically come to Neutral position.



CAUTION – Watch the zip ties sharp ends to hold the nylon sleeves on loader hydraulic hoses, it may cause scars or minor injury.

PRE – OPERATION CHECKS

1. Quick Checks

- Follow all safety rules as described in this manual
- Ensure that all the hydraulic lines are in good condition and are without any leaks.
- All fasteners should be properly tightened.
- Check all lubrications points and lube fittings.
- Ensure ROPS (Roll Over protection structure) and drive seats are in good condition.
- Ensure bucket is properly secured with hitch with proper and recommended cotters and pins.

2. Ballasting the tractor



WARNING - To prevent serious injury or death - Always use a counterweight in the rear of the tractor for Frontend Loader work. This is necessary for operational and road safety.

Please ensure below mentioned **counterweight** in rear of tractor -

Model	counterweight
3200 (Solis 24)	250 – 300 Kgs (551 – 661 lbs)

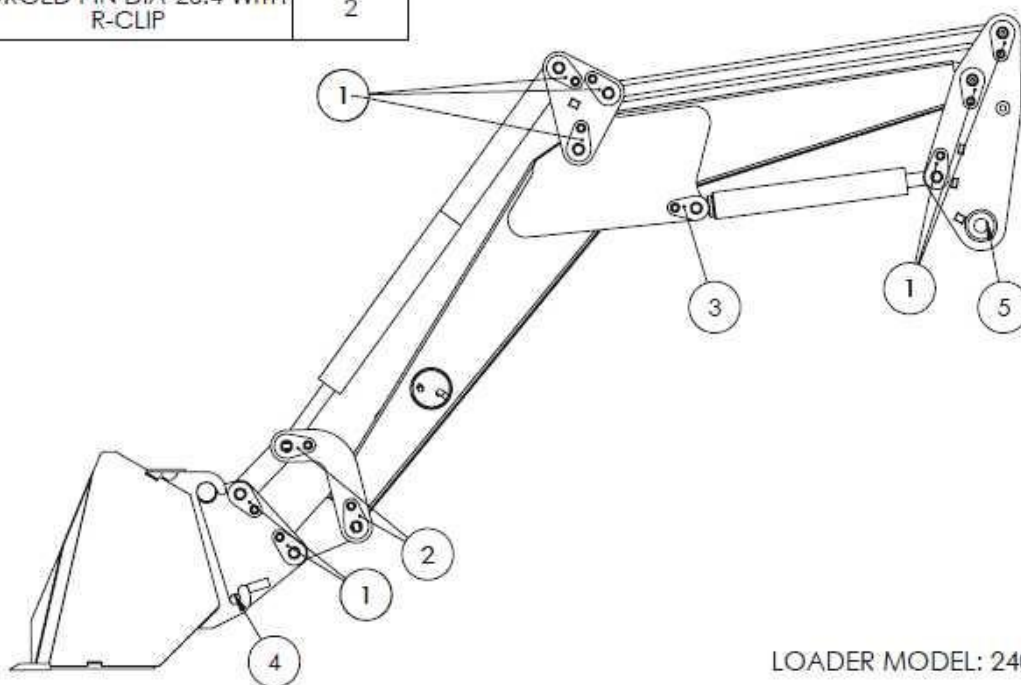
OPERATION

3. Lubrication

Ensure that all greasing points are greased properly using NLGI grade no 2. Please do greasing accordingly on both sides.

Transmission Oil - Refer tractors operator manual for topping up the transmission oil.
Oil top up is not required for this tractor on a loader assembly.

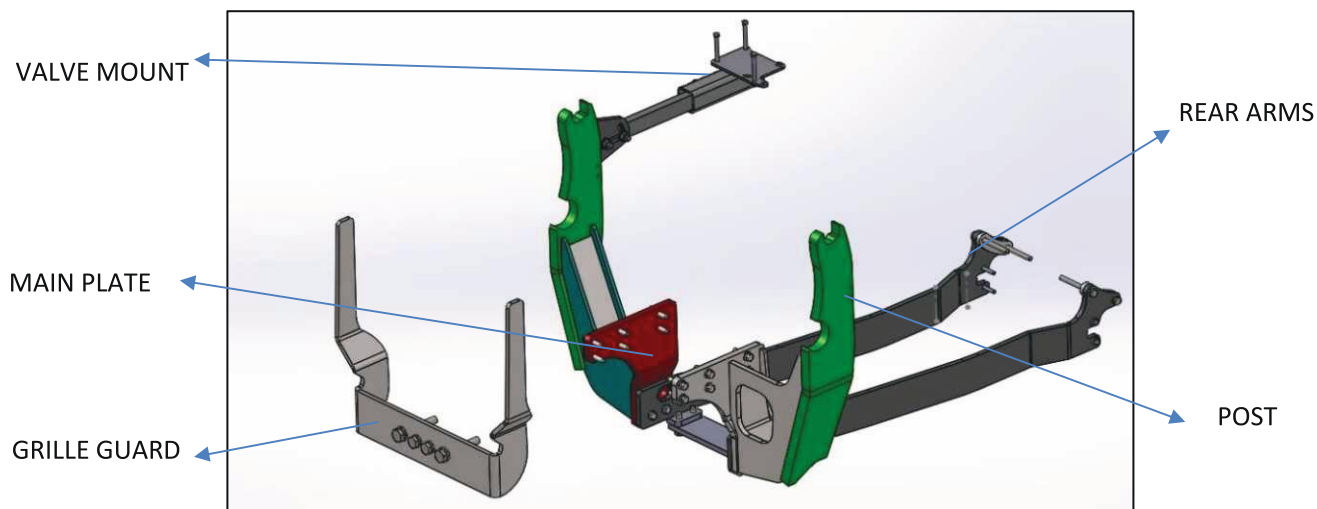
LOADER PINS			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L-G110	GREASABLE PIN 110mm LONG	16
2	L-G120	GREASABLE PIN 120mm LONG	4
3	L-G80	GREASABLE PIN 80mm LONG	2
4	L-F175	FORGED PIND DIA -17.5 WITH LYNCH PIN	2
5	L-F254	FORGED PIN DIA-25.4 WITH R-CLIP	2



The above drawing shows the locations of the greaseable pins.

WORK INSTRUCTIONS

1. SUBFRAME FITTING INSTRUCTIONS



SOLIS 24 SUBFRAME (Model – 3200)

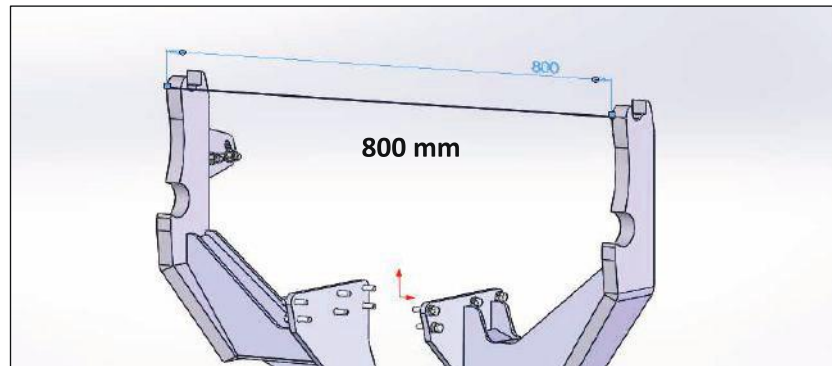
Every model tractor make is different, the sub-frame and hence the exact steps to fit it are different for every tractor

- Depending on the tractor, although not all sub-frames have rear mounts.
- Starting on the Right hand side of the tractor, remove engine side cover
- Unbolt Fuel filter and move it out of the way preparation for the sub frame fitting.
- Check the drawings and remove or loosen where necessary any existing stabilizer mounts, ROPS mounts, if required. (Replace with longer bolts if provided)
- Position the mid or back mounts supplied. Fasten them in position, ensuring that it is fitted the same way as it was assembled in the kit
- Position one side of the sub-frame on the tractor and, with bolts supplied, fasten into position. Depending on the tractor and sub-frame design, the sub-frame may have or may not have centre, front and rear mounts – check the drawings.
- Size and number of bolts to be used are shown in the drawing supplied with the kit. It is recommended that all bolts be fitted before any are fully tightened up.
- Confirm that the sub-frame side plate is on the correct side of the rear mounts by checking the drawing.
- **NOTE:** It may be necessary to pull the sub-frame into place using a sash clamp or similar due to variations between tractors and creep-age during welding of the sub-frame upto about

WORK INSTRUCTIONS

20mm (0.79 inches). This is not a manufacturing defect. The rear arm is designed to accommodate this sort of variation.

- Fasten the other side of the sub-frame onto the tractor in a similar manner.
- Prior to fastening the cross member (see next heading) or finally tightening the mid mount bolts, use a tape measure to check the distance between centres at the top of the posts, where the loader will be attached. The distance should be 800mm (31.5 inches).



- The measurements listed above are centre to centre, however it is easier to measure from outside to inside, which gives the same result, as shown in the photos. Tolerance allowed on the top of post for these dimensions is $\pm 10\text{mm}$ (0.39 inches). If any deviation from the allowed tolerance please use a clamp to adjust the posts to the correct centres. If necessary fit the spacers provided or washers to achieve the proper distance.

CROSS MEMBER

- SOLIS cross members are of several different types, depending on the tractor.
- If there is a cross member, position it in place and fasten with the bolts supplied. Check the post top centers again.



GRILLE GUARDS

- The grille guard are clamped onto the front of the chassis or the weight frame or bolted to the sub-frame side plates. If not used to mount the grille guard, the weight frame will have to come off.
- Position the guard based on mounting arrangement as per the drawings and clamp it in place. Check for bonnet clearance.



WORK INSTRUCTIONS

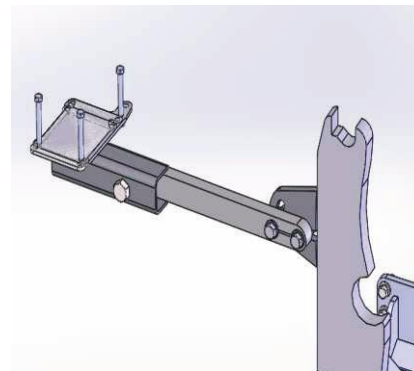
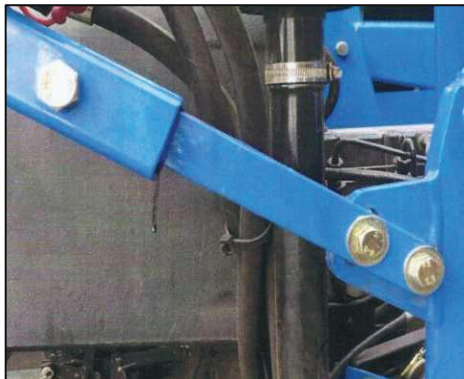
REAR ARM

- The most common type of rear mount has a right angle plate to be mounted to the tractor and the rear arm has a big square hole (and clamp plate) or slots to allow for manufacturing variations.
- Fixing Rear Arm of SOLIS 24 requires removal of Rear Tires.
- In Solis 26 HST tractor rear arm are not required.

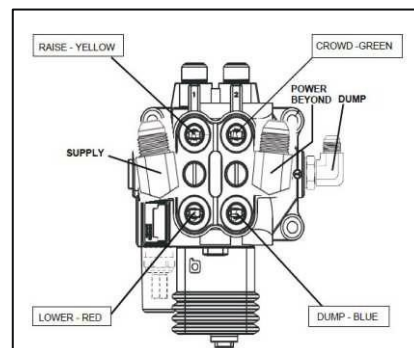


2. VALVE MOUNTS FITTING INSTUCTIONS

- Position the mechanical joystick from the driver's seat at a comfortable position, but ensure the cables will reach the valve.
- Adjust the joystick or handles to a comfortable position using the two bolts at the bottom to set the angle for the bar. Then slide the RHS along the bar to achieve the required distance from the driver.
- "Cab" valves are controlled using a joystick via cables.
- The bolt drawings which shows how and where the joystick needs to be positioned and the bolts to be used. Joystick mount varies according to the tractor, but there are three common types. Based on the valve supplied, the sub frame will have a mount on the RH of the side post.



Joystick mounting brackets



Control Lever

WORK INSTRUCTIONS

3. HOSE CONNECTION IN TRACTOR

- Before attaching the hoses to the valve, put the valve end of the supply hose in a bucket and flick the tractor engine on and off to confirm that oil is flowing from the supply line.
- Then attach this line to the correct position on the valve. Failing to do this may result in dead-heading the pump, if the supply and Power-Beyond (PB) lines are reversed, and cause damage such as breaking the pump shaft or shearing its drive key.
- Kits are supplied with hydraulic fitting instructions. Plumb the tractor based on the instructions and drawings supplied. Valves are supplied preset for the tractor's circuit. Check clearances exhaust pipe and moving parts viz., links, gear levers, remote levers etc.



SOLIS 24 PB and SUPPLY connections (below left side platform of tractor)

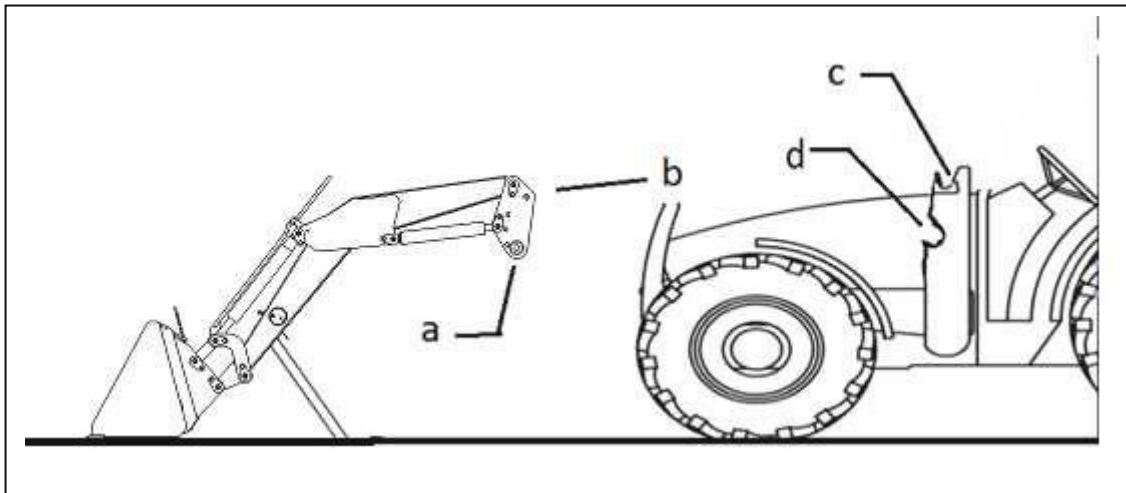


SOLIS 24 DUMP or TANK CONNECTION

QUICK DETACH INSTRUCTIONS

TO REMOVE THE LOADER (Quick Detach Models)

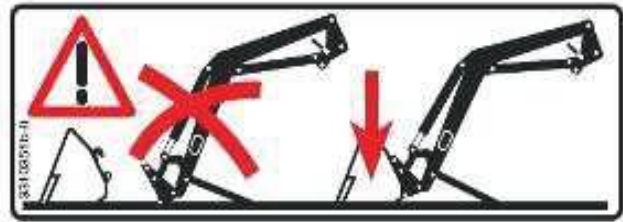
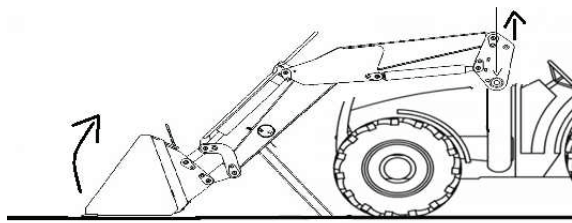
- Place the tractor on a level surface and raise the attachment approximately **1.2m (4 Feet)** from the ground.
- Standing outside the arms, (for higher range loaders) loose bolts, swing legs to down position on both sides and tighten the bolts. Ensure legs are locked in the keepers. For compact Loader Pull out the upper leg with help of Lynch pin following the bottom leg, Ensure legs are locked in the keepers.
- Remove locking pins from the loader post (a), away from the pin and slide the pin out.
- Lower the loader arms until the stands are on the ground.
- Roll the bucket forward until the cutting edge is about **50mm (2 inch)** off the ground.
- Push the control lift lever forward (Dump condition) to close the lift cylinders. This will pull the bases of the post caps (b) away from the post loader mounting points (d & c).
- Drive the tractor forward about 20-30mm (0.79 – 1.18 inches).
- This will allow the loader to rock forward and be clear of the posts.
- Disconnect the hydraulic hoses and hang them on the loader, out of the way of the tractor.
- Reverse the tractor out from the loader



QUICK DETACH INSTRUCTIONS

TO REFIT THE LOADER

- To refit the loader, drive the tractor into the arms until the post caps are over the posts.
- Turn off the engine and connect the hydraulic hoses. If they are difficult to connect, move the hydraulic control levers so as to relieve the pressure in the hoses.
- Roll the bucket forward until the post caps are sitting on the posts.
- Extend the lift rams until the post caps engage the bushing on the post. Check to be sure that the post caps are fully engaged onto the post.
- Raise the attachment approximately 1.2m (4 feet) from the ground and reposition quick change pins and lock them with lynch pins provided.
- Standing outside the arms, loose belts, swing stand legs up into its keeper and fasten the belts.



DISCONNECTING HYDRAULICS

(Electric Front Remotes - Optional)

- Turn your tractor off, and back on to accessory. Move your joystick from side to side with your diverter button held in releasing pressure from the couplers and then disconnect.
(3 Bank Valve and front remotes / Front remotes to Tractor remotes - Optional)
- Turn your tractor off and move the 3rd function lever up and down releasing pressure from the couplers and then disconnect.

RECONNECTING HYDRAULICS

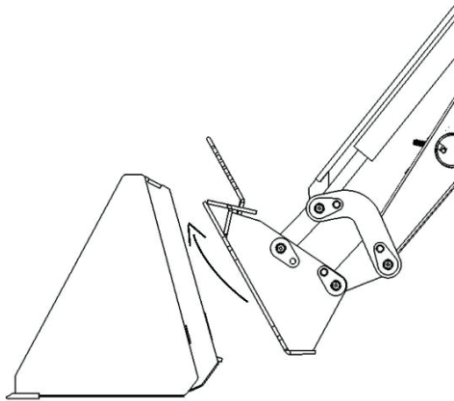
(Electric Front remotes - Optional)

- Turn your tractor off, and back on to accessory. Move your joystick from side to side with your diverter button held in releasing pressure from the couplers and connect the tips.
- (3 Bank Valve and front remotes / Front remotes to Tractor remotes - Optional).
- Turn your tractor off and move the 3rd function lever up and down releasing pressure from the couplers and connect hoses.

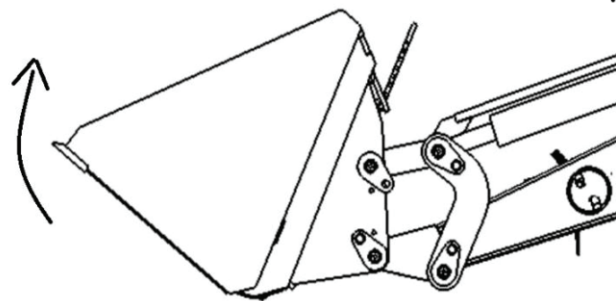
QUICK DETACH INSTRUCTIONS

ATTACHMENTS AND REMOVAL OF IMPLEMENTS

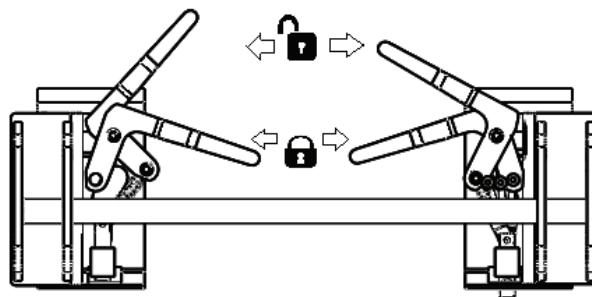
1. Drive into the attachment lining up the white line up stickers on the right hand side of the quick change.
2. Engage the top bar in the hook by lifting the quick change. Once the attachment is off the ground, tilt back until the attachment hooks hit the stop.
3. Reposition the attachment locking pins and secure with lynch pins or r clips.



Step 1

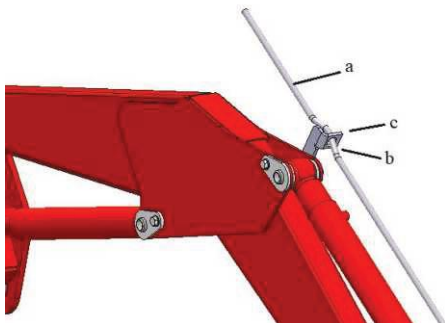


Step 2



Step 3

LEVEL DISPLAY INDICATOR



- Check the horizontal implement position via the level indicator
- The tool is at the horizontal position when the elbow (c) of the rod (a) is in the hole (b).



- In some models an adjustable clamp is provided . the clamp can be unbolted and adjusted as per desired applications and understanding.

4 IN 1 BUCKET : Do's & Don'ts (If Equipped)

IF YOUR LOADER HAS A 4-IN-1 BUCKET PLEASE NOTE THE FOLLOWING:

General

The SOLIS 4-in-1 Bucket is a multipurpose bucket designed for the following functions:

1. Use as a plain bucket,
2. Use as a scooping scraper/levelling bucket,
3. Use as a blade,
4. Use as a grab.

With proper use, SOLIS 4-in-1 Bucket will give many years of trouble-free service. However, operating the bucket and Front End Loader (FEL) for jobs other than those listed above, or applying excessive loads beyond their design intents may damage the bucket, the loader or the tractor.

Do

1. Ensure you are familiar with the tractor, loader and bucket operation.
1. Ensure that the weight in the bucket when full does not exceed the Safe Working Load or Rated Operating Load (whichever is lower) of the FEL.
2. In bucket operation, use the bucket for picking up loose material, soft soil, gravel, etc.
3. In scraper and blade operation, use the bucket for finishing work on loose ground.
4. In grab operation, use the bucket to pick up and grapple loose objects.
5. Try to apply even force to both sides of the bucket and FEL, by centralising loads in the bucket and picking up objects in the centre.
6. Be aware that, since the bucket is designed to grab and hold a load, there is no pressure relief in the hydraulic circuit lower than tractor pressure. This may be enough to bend the front edge of the bucket if full closing force is applied to small diameter hard object such as a post or stump.

Don't

1. Use the bucket to try to break up or dig in compacted or heavily rock-strewn soils.
2. Pull out objects embedded in the ground, such as stumps or posts. Especially, do not grab a fixed object and then drive the tractor backwards and forwards to attempt to 'rock' the object out of the ground.
3. Drag or pull backwards against a fixed object, such as a rock embedded in hard ground, as this will apply full tractor force to the front half of the bucket.
4. Scrape or blade at higher than crawl speed.
5. Lower the bucket to the ground while travelling at higher than crawl speed.
6. Use the bucket as a lifting jib. Especially do not loop a chain or sling around the front edge or one side of the bucket. (Note: a FEL lifting jib attachment for is available for this purpose).

MAINTENANCE

- GOOD MAINTENANCE IS YOUR RESPONSIBILITY.
- POOR MAINTENANCE INVITES TROUBLE.
- Grease nipples are provided on pivot points that require greasing.
- Proper lubrication is essential to ensure maximum loader life. Grease all nipples prior to commencement of operation and then every eight hours of loader operation, or more often in extreme conditions. Lower the loader to the ground before commencing greasing.
- Hydraulic oil and filters should be changed in accordance with the tractor manufacturer's recommendations.
- Check all bolts for tightness after initial operation and periodically thereafter.
- Check regularly for worn parts, cracks, frayed hydraulic hoses and hydraulic leaks.

GREASING, LUBRICATION AND TORQUE STATEMENT

Greasing, Lubrication and Bolt Torque

Greasing, Lubrication and maintenance of Bolt Torque of your equipment is critical to the longevity and safety of your equipment. Failure to correctly follow a maintenance program may result in product failure and voiding of warranty.

SPECIAL NOTE:

TORQUE all mounting bolts First 10Hrs then every 50hrs Thereafter (M 12, 10.9 grade) at 121 Nm (89.3 Lbft).

Daily Checks (First 50 hours)

- Grease all pivot points.
- Visually inspect Attachment, Subframe and Decals for integrity.
- Visually inspect and torque all Bolts, Fasteners and Hydraulic fittings.



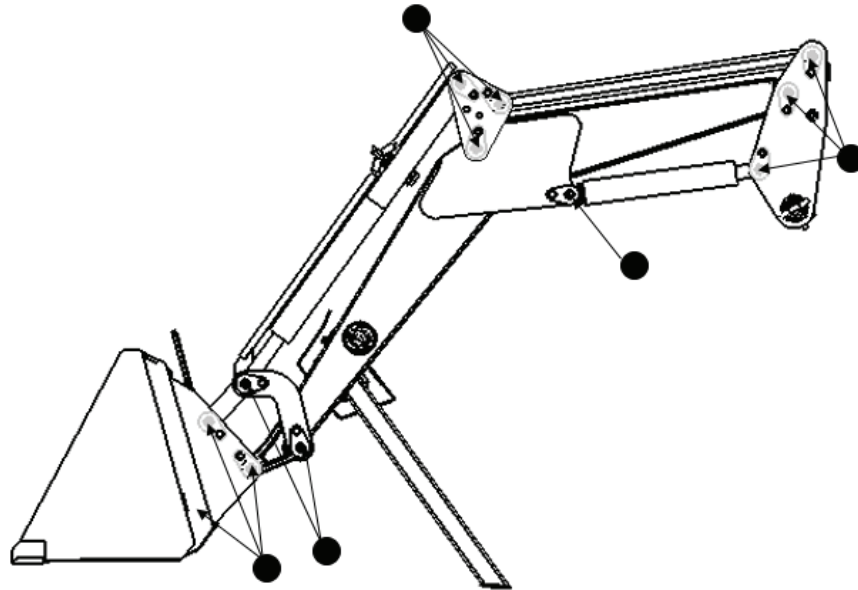
MAINTENANCE

Every 10 Hours of operation there after

1. Grease all pivot points.
2. Torque all bolts on Attachment and Subframe
3. Visually inspect Attachment, Subframe and Decals for integrity
4. Inspect and replace damaged hydraulic hoses, pipes or clamps.

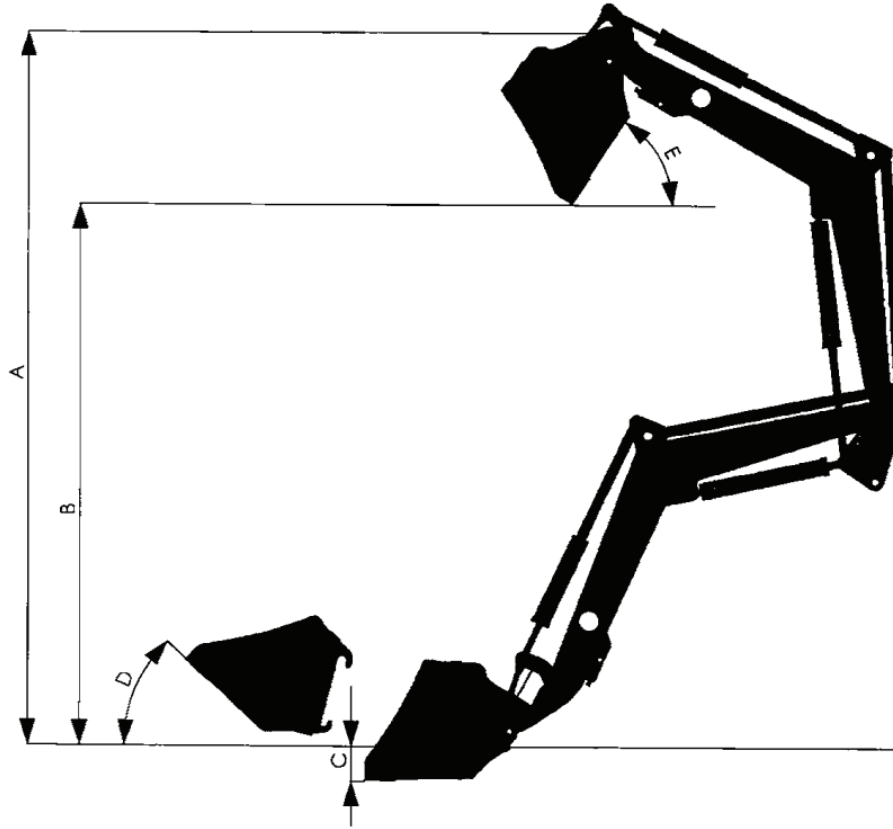
Yearly

1. Check Joystick / Cables for operations and setting
2. Inspect all pivot points for wear or excess clearance and replace parts if required
3. Inspect all welds for cracks



The above drawing show the location of the greaseable pi

FRONT END LOADER SPECIFICATIONS



MODEL	3200
Approx. H.P. range	15-26
Bucket Width (mm / inches)	1264 / 49.8
A. Maximum Lift Height to pivot pins (mm / inches)	2110 / 83.1
B. Height Under Level Bucket (mm / inches)	1951 / 76.8
C. Dump Clearance (mm / inches)	1540 / 60.6
D. Dig Depth (mm / inches)	157 / 6.18
E. Maximum Dump Angle (degree)	50
F. Maximum Roll back Angle (degree)	39
Front End Loader Weight Kgs / lbs	190 / 419
Lift Capacity at pivot pins (Kgs / lbs)	420 / 925

*Specifications are approximate and are subject to change without notice.

TORQUE SPECIFICATIONS

Spec-GS-011	Bolt Torque Settings
-------------	----------------------

Scope:

This specification gives information about torque settings on Metric & Imperial bolts and things to be noted down while fastening a bolt

Special Notes:

- Use correct tools on bolts. Tools that do not fit properly may slip and cause injury.
- Replacement bolts must be the same or a higher grade. If a higher grade is used, it should only be tightened to the original torque settings.
- Make sure bolt threads are clean and engaged properly when starting. This will prevent them from failing when tightening.

Specifications:

SAE SERIES TORQUE CHART			
BOLT DIA. (Inches)	SPANNER SIZE	GRADE 5	
		(N-m)	(ft-lbs)
1/4"	7/16"	7	5
5/16"	1/2"	15	11
3/8"	9/16"	27	20
1/2"	3/4"	66	49
5/8"	15/16"	130	96
3/4"	1 1/8"	230	170
7/8"	1 5/16"	370	273
1"	1 1/2"	560	413

METRIC SERIES TORQUE CHART			
BOLT DIA. (mm)	SPANNER SIZE	CLASS 10.9	
		(N-m)	(ft-lbs)
8	13	33-35	24-25
10	16	65-71	48-53
12	18	110-122	81-90
14	21	180-195	133-144
16	24	270-299	199-221
18	27	380-413	280-305
20	30	530-585	391-432
24	36	890-1011	656-747

TORQUE SPECIFICATIONS

Spec-GS-012	Hydraulic Fitting Torque Settings
-------------	-----------------------------------

Scope:

This specification gives information about torque settings on fittings and things to be noted down while fastening a fittings.

Special Notes:

- Use correct tools on fittings. Tools that do not fit properly may slip and cause injury.
- Make sure threads are clean and engaged properly when starting. This will prevent them from failing or leaking when tightening.

Specifications:

Straight thread O-ring Boss low pressure with 37° (SAEJ514)			
Dash Size	Thread Size (inches)	Jam Nut or Straight Fitting torque lb.ft	Jam Nut or Straight Fitting torque Newton Meters
-03	(3/8)-24	8-9	12-13
-04	(7/16)-20	13-15	18-20
-05	(1/2)-20	14-15	19-21
-06	(9/16)-18	23-24	32-33
-08	(3/4)-16	40-43	55-57
-10	(7/8)-14	43-48	59-64
-12	1 (1/16)-12	68-75	93-101
-14	1 (3/16)-12	83-90	113-122
-16	1 (5/16)-12	112-123	152-166
-20	1 (5/8)-12	146-161	198-218
-24	1 (7/8)-12	154-170	209-230
-32	2 (1/2)-12	218-240	296-325

Straight thread O-ring Boss High pressure with ORS (J1453)			
Dash Size	Thread Size (inches)	Jam Nut or Straight Fitting torque lb.ft	Jam Nut or Straight Fitting torque Newton Meters
-03	(3/8)-24	8-10	11-13
-04	(7/16)-20	14-16	20-22
-05	(1/2)-20	18-20	24-27
-06	(9/16)-18	24-26	33-35
-08	(3/4)-16	50-60	68-78
-10	(7/8)-14	72-80	98-110
-12	1 (1/16)-12	125-135	170-183
-14	1 (3/16)-12	160-180	215-245
-16	1 (5/16)-12	200-220	270-300
-20	1 (5/8)-12	210-280	285-380
-24	1 (7/8)-12	270-360	370-490

TORQUE SPECIFICATIONS

ORS			
Dash Size	Thread Size (inches)	Swivel Nut Torque lb.ft	Swivel Nut Torque Newton Meters
-04	(9/16)-18	10-12	14-16
-06	(11/16)-16	18-20	24-27
-08	(13/16)-16	32-35	43-47
-10	1-14	46-50	62-68
-12	1(3/16)-12	65-70	88-95
-16	1(7/16)-12	92-100	125-136
-20	1(11/16)-12	125-140	170-190
-24	2-12	150-165	204-224

SAE 37° (JIC)			
Dash Size	Thread Size (inches)	Swivel Nut Torque lb.ft	Swivel Nut Torque Newton Meters
-04	(7/16)-20	11-12	15-16
-05	(1/2)-20	15-16	20-22
-06	(9/16)-18	18-20	24-28
-08	(3/4)-16	38-42	52-58
-10	(7/8)-14	57-62	77-85
-12	1(1/16)-12	79-87	108-119
-16	1(5/16)-12	108-113	148-154
-20	1(5/8)-12	127-133	173-182
-24	1(7/8)-12	158-167	216-227
-32	2(1/2)-12	245-258	334-352

***"G" in BSPP threads denotes parallel threads, other than ISO 6149. (Port connection only)

Note:

Torque wrench is to be used for correct torque settings. Fittings and hoses are to be torqued as per standards.

Hand tightening may exceed the specified torque required.

Over torquing will damage the components seals, threads which can cause leakages.

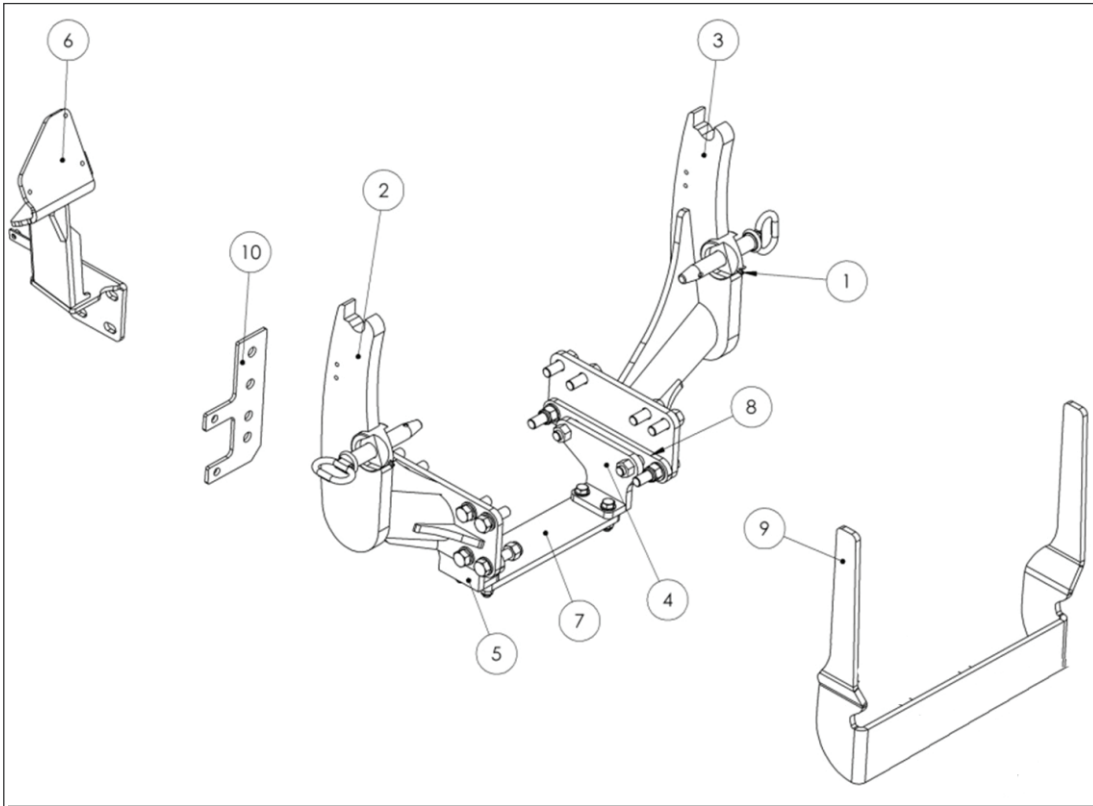
The values listed are for steel connections we recommends that a torque wrench be used to assure proper fitting assembly of these connections.

BSPP		
Nominal Thread Size	Straight Adapter or Locknut Torque	
inches **	lb.ft	Newton Meters
G (1/8)-28	13-15	18-20
G (1/4)-19	19-23	25-30
G (3/8)-19	33-40	45-55
G (1/2)-14	55-70	75-95
G (3/4)-14	103-118	140-160
G1-11	162-184	220-250
G 1(1/4)-11	170-192	230-260
G 1(1/2)-11	258-347	350-470

SUBFRAME AND HYDRAULIC FITTING INSTRUCTION

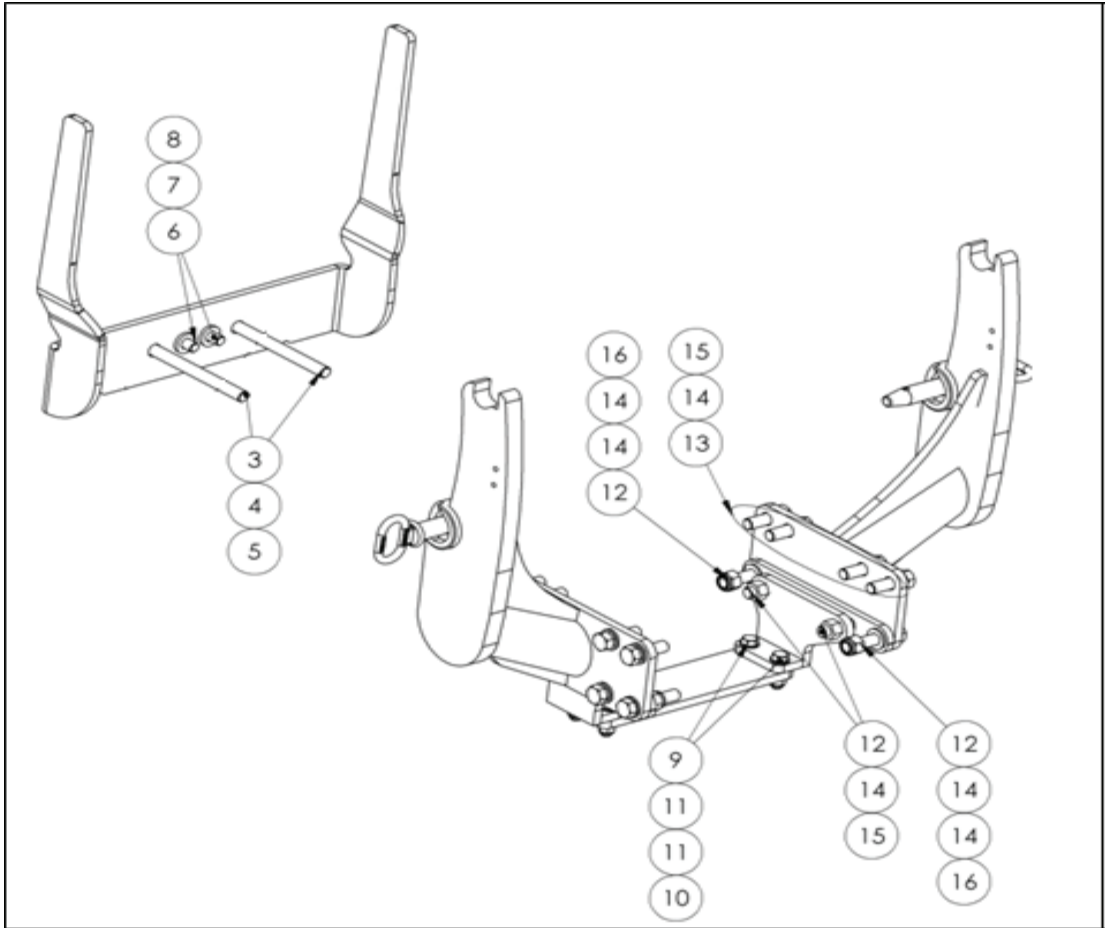
○ Subframe And Hardware Parts Details

Assemble the hardware and parts as shown in the image below,
Remove necessary filter brackets for assembling subframe and tractor front weights.
The following tables are also references to order spare parts.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S1130600542	GREASE NIPPLE	2
2	S1130602689	RH SUBFRAME	1
3	S1130602690	LH SUBFRAME	1
4	S1130602691	LH CROSS MEMBER MTG	1
5	S1130602692	RH CROSS MEMBER MTG	1
6	S1130602226	DCV MOUNTING BRACKET	1
7	S1130602687	CROSS MEMBER	1
8	S1130602688	MID MOVER PLT	2
9	S1130600540	RAMSHORN	1
10	S1130602228	PLATE FOR DCV PIPES MTG	1

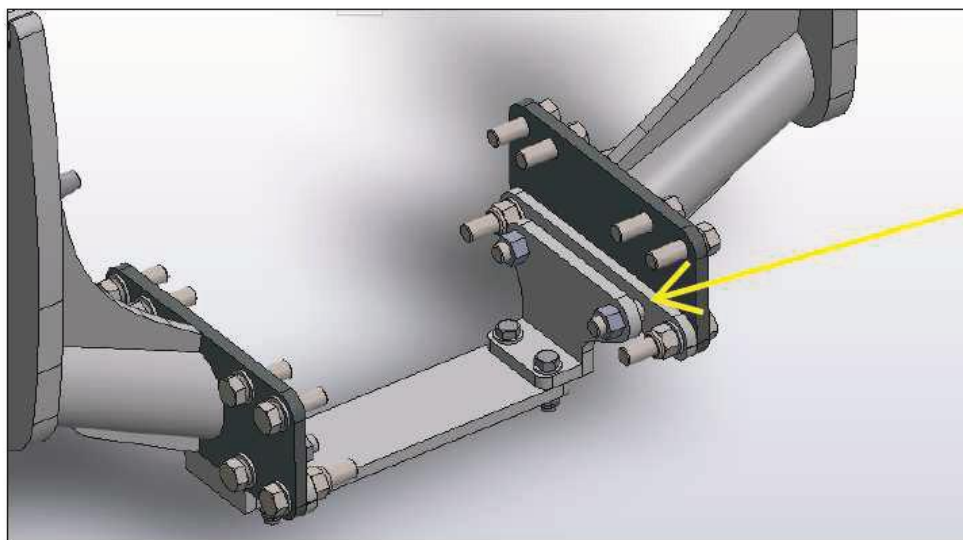
SUBFRAME AND HYDRAULIC FITTING INSTRUCTION



HORN PLATE CONNECTION			
S.NO	PART NO	DESCRIPTION	QTY
3	S1130602283	HEX,BOLT,M16X2X180 SEMI THREAD	2
4	S1130600547	PLAIN WASHER M16	2
5	S1130600548	SPRING WAHSER M16	2
6	S1130602284	HEX,BOLT,M14X2X40 SEMI THREAD	2
7	S1130600550	PLAIN WASHER M14	2
8	S1130600551	SPRING WAHSER M14	2

SUBFRAME AND HYDRAULIC FITTING INSTRUCTION

X-MEMBER CONNECTION			
S.NO	PART NO	DESCRIPTION	QTY
9	S1130602678	HEX,BOLT,M12X1.75X45 SEMI THREAD	4
10	S1130600563	NYLOC NUT M12	4
11	S1130600559	PLAIN WASHER M12	8
MAIN PLATE			
S.NO	PART NO	DESCRIPTION	QTY
12	S1130600735	HEX,BOLT,M16X2X75 SEMI THREAD,	8
13	S1130602693	HEX,BOLT,M16X2X50 SEMI THREAD	8
14	S1130600547	PLAIN WASHER M16	20
15	S1130600548	SPRING WAHSER M16	12
16	S1130600733	NYLOC NUT M16X2	4



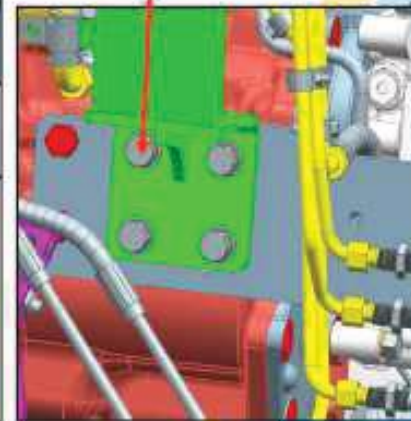
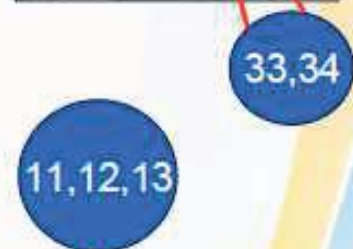
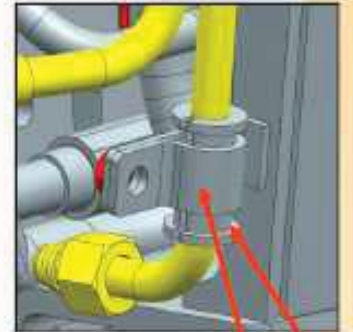
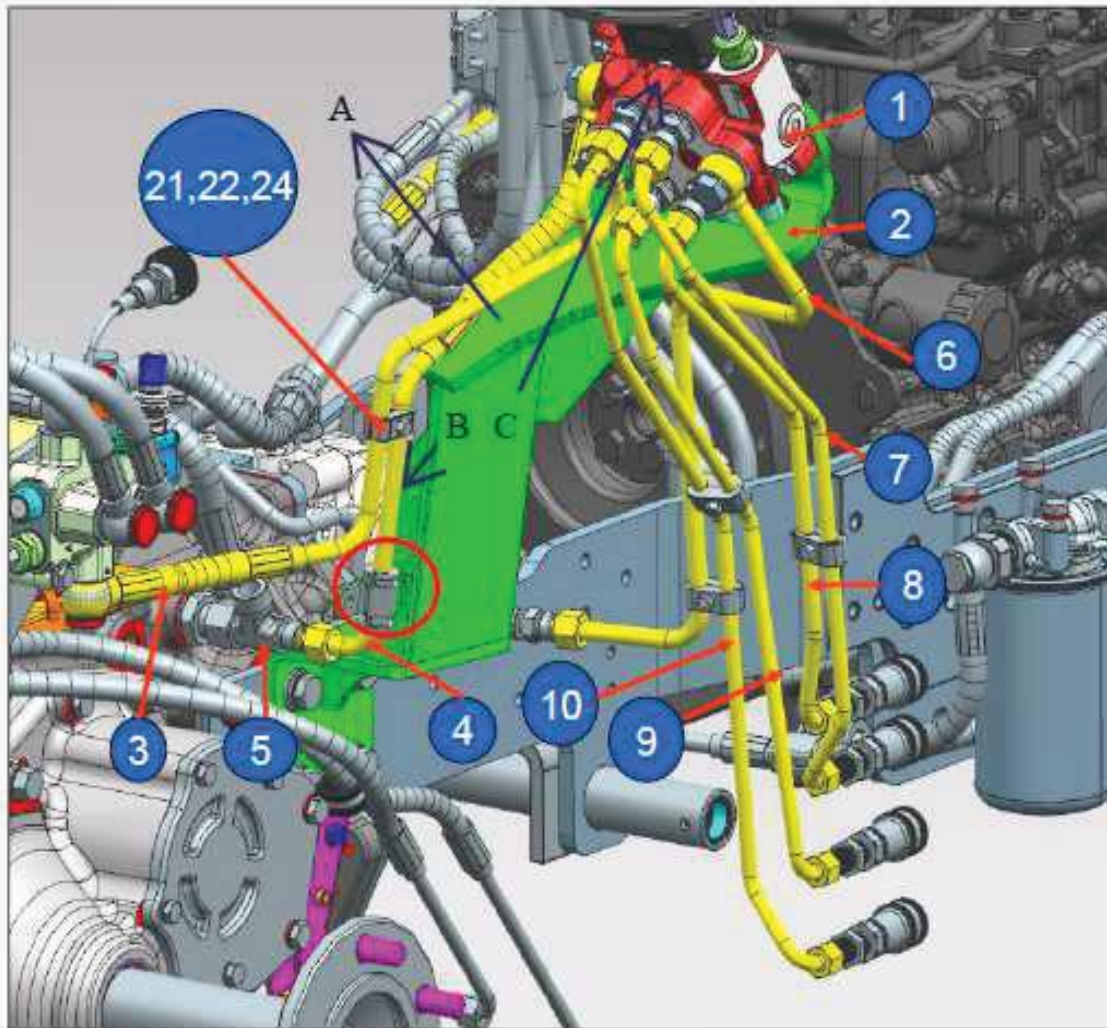
spacer to be removed
for tractor with Mid
Mover both LH& RH

Please Note: Oil topup is not required for this tractor.
Apply loctite 242 to mouting bolts assembeled on the loader and tractor.
For all Hydraulic connections apply Loctite 542 and torque to the recommended value.

HYDRAULIC FITTING INSTRUCTION

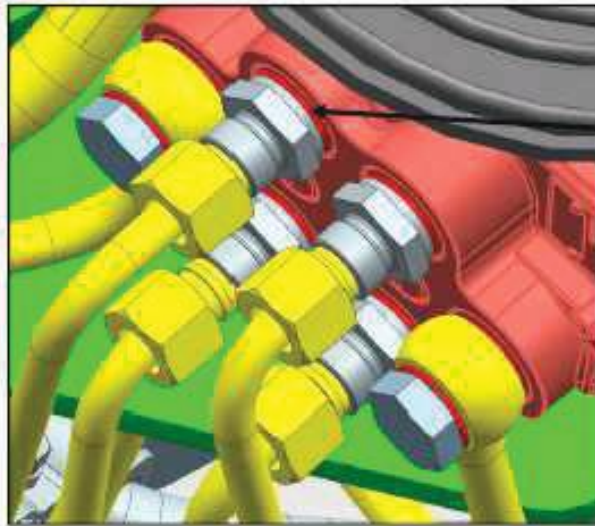
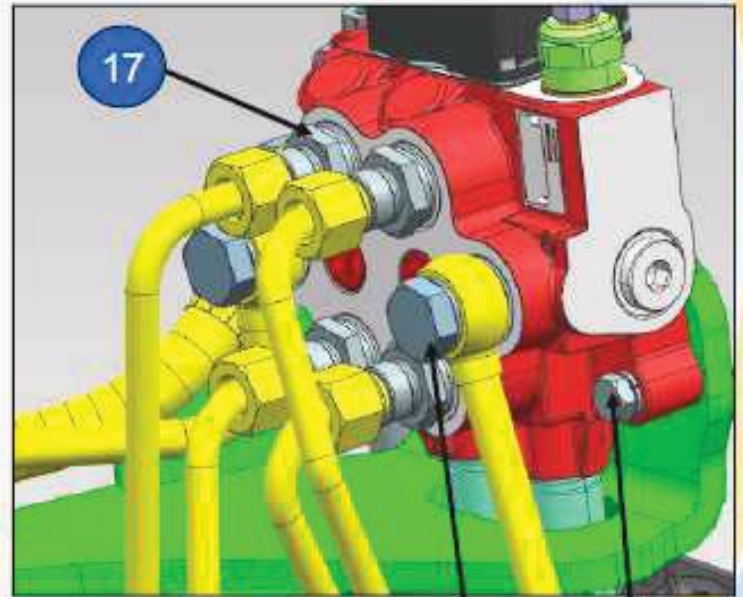
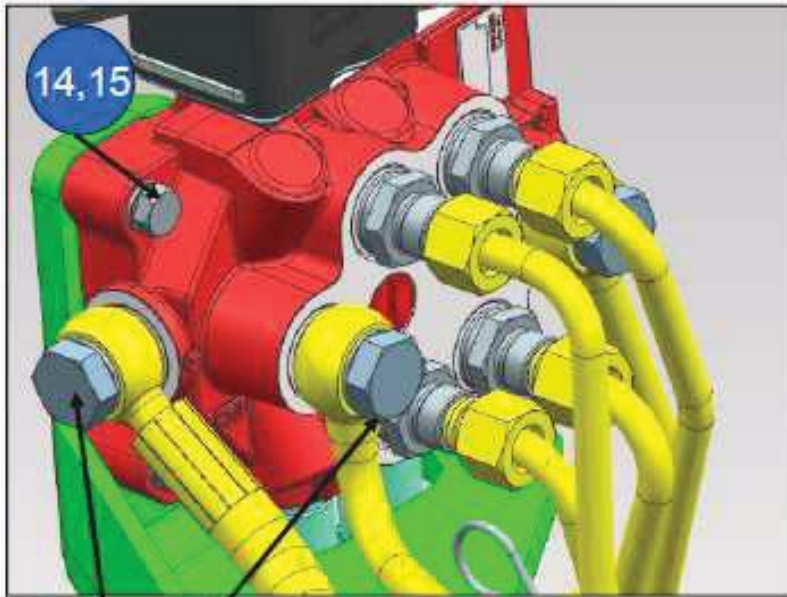
S.NO.	PART NUMBER	DESCRIPTION	QTY.
1	S1130602232	2 DOUBLE ACTING DCV	1
2	S1130602226	DCV MOUNTING BRACKET	1
3	S1130602225	PIPE FROM 2DA DCV(HPCO) TO 1DA DCV (P)	1
4	S1130602227	FLEXIBLE PIPE FROM LOADER DCV(T) TO REAR	1
5	S1130602231	TEE ADOPTER- M18x1.5, M18x1.5, M24x1.5	1
6	S1130602230	SECONDARY PIPE PRIORITY VALVE TO 2DA DCV	1
7	S1130602233	PIPE FROM 2DA DCV (B1) TO QRC 2	1
8	S1130602236	PIPE FROM 2DA DCV (A1) TO QRC 1	1
9	S1130602234	PIPE FROM 2DA DCV (A2) TO QRC 3	1
10	S1130602235	PIPE FROM 2DA DCV (B2) TO QRC 4	1
11	S1130602249	HEX BOLT M14X2X50 SA4GS	4
12	S1130602258	SPRING WASHER B-14	4
13	S1130600550	PLAIN WASHER M14	4
14	S1130602257	HEX SCREW M8X1.25X35 8.8 SA4GS	3
15	S1130600687	SPRING WASHER M8	3
16	S1130602252	BANJO BOLT Ø16.4(19TPI)	3
17	S1130602238	ADOPTER M18X1.5-3/8" BSP	4
18	S1130602253	BONDED SEAL FOR3/8" BSP	10
19	S1130602686	PRIMARY PIPE FROM PRIORITY VALVE TO 2DA DCV	1
20	S1130602243	FEMALE QUICK CONNECT COUPLER3/8" BSP	4
21	S1130602255	HEX SCREW M6X30 SA4GS	4
22	S1130602224	HEX NUT M6 -8 SA4GS	4
23	S1130602241	CLAMP-10/10	3
24	S1130602240	CLAMP-12/12	1
25	S1130602228	PLATE FOR DCV PIPES MTG	1
26	S1130602222	JOY STICK LEVER	1
26A	S1130602684	(Male M10x1.5 VS MALE M12 X 1.75) Bucher valve to Joystick lever adaptor for push button joystick only	1
27	S1130602229	JOY STICK BELLOW	1
28	S1130602223	JOY STICK KNOB	1
29	S1130602251	HEX SCREW M12*1.75*35	2
30	S1130602260	HEX NUT M12X1.75 -8 SA4GS	2
31	S1130602259	SPRING WASHER B-12 TYPE-A IS:3063-1972	2
32	S1130602244	M/C WASHER DIA 13*DIA 24*2.5	2
33	S1130602245	VIBRATION DAMPER	1
34	S1130602237	CLAMP CURVE	1
35	S1130602683	CUP HOLDER_RH-HST	1
36	S1130602225	SECONDARY PIPE FROM PRIORITY VALVE TO 1DA-DCV (P)	1

HYDRAULIC FITTING INSTRUCTION



1. Kindly dismantle RH tire, no.36 & cup holder on the fender for the following assembly.
2. Use necessary precautions and safety .
3. Preassemble the bracket A(no.1) ,B(HOSE 4),C & Valve(no.1), (no14,15)
4. Do not torque "B(hose 4) connection on the valve complete full assembly and then tighten the banjo bolt.)

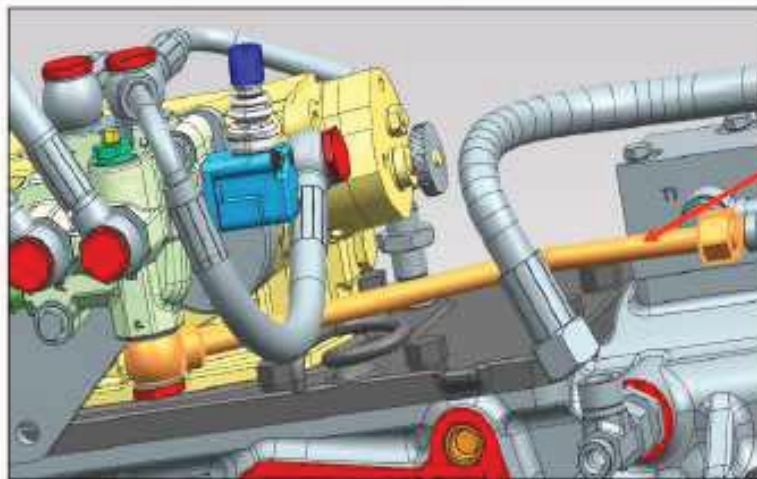
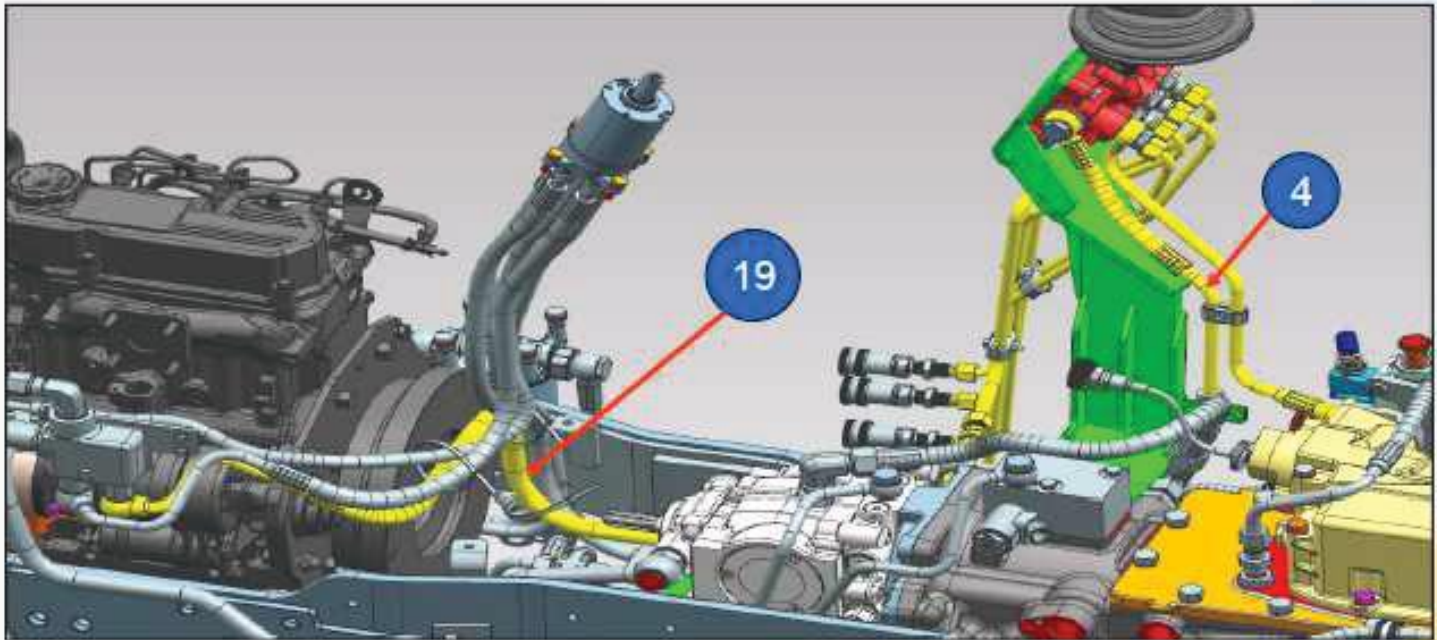
HYDRAULIC FITTING INSTRUCTION



18

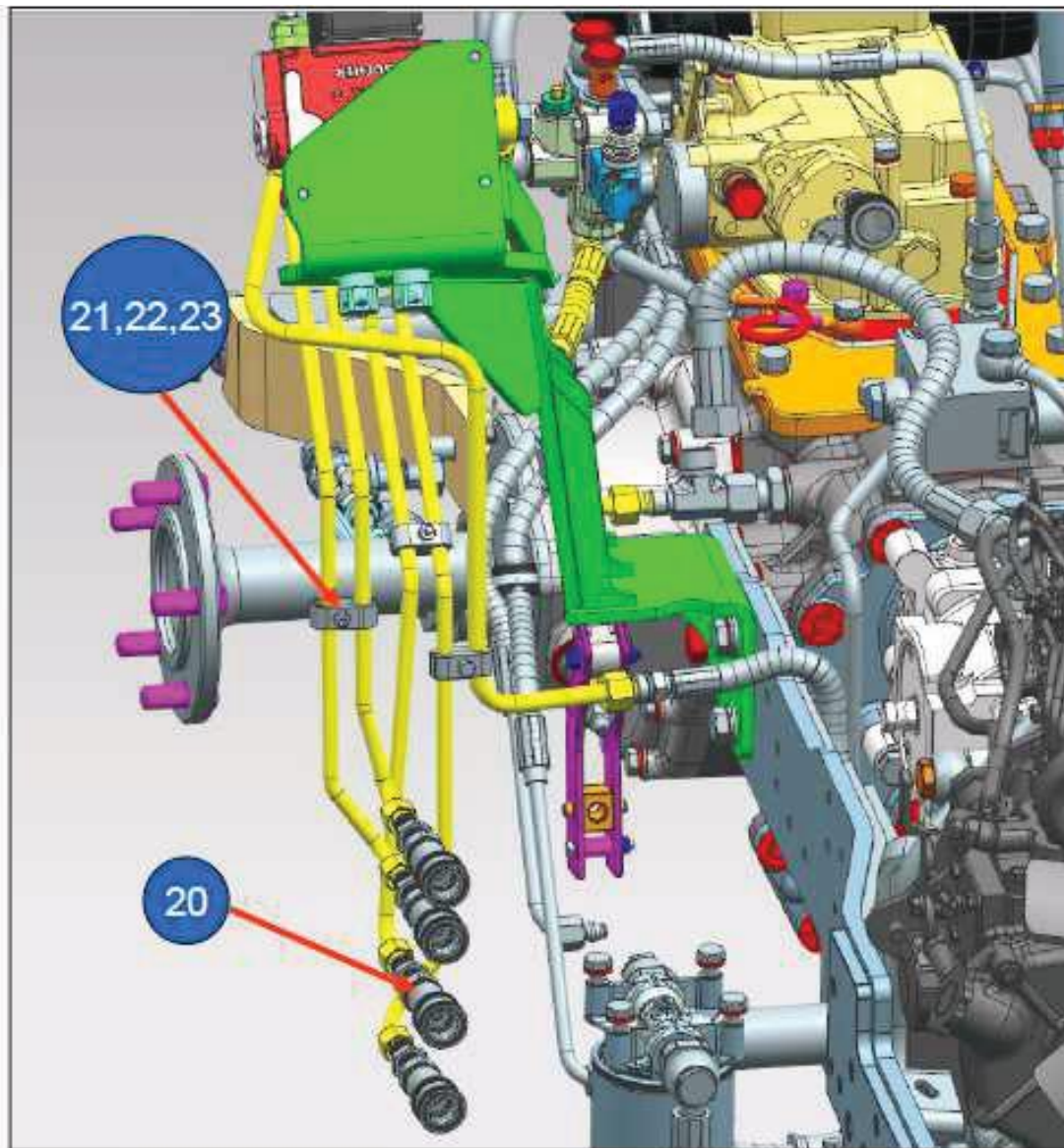
5. Assembly NO. 17 To the valve all 4 nos.
6. Followed by 25,29,30,31,32
7. Assemble 8-9-7-10 IN SERIES use thread lock.

HYDRAULIC FITTING INSTRUCTION



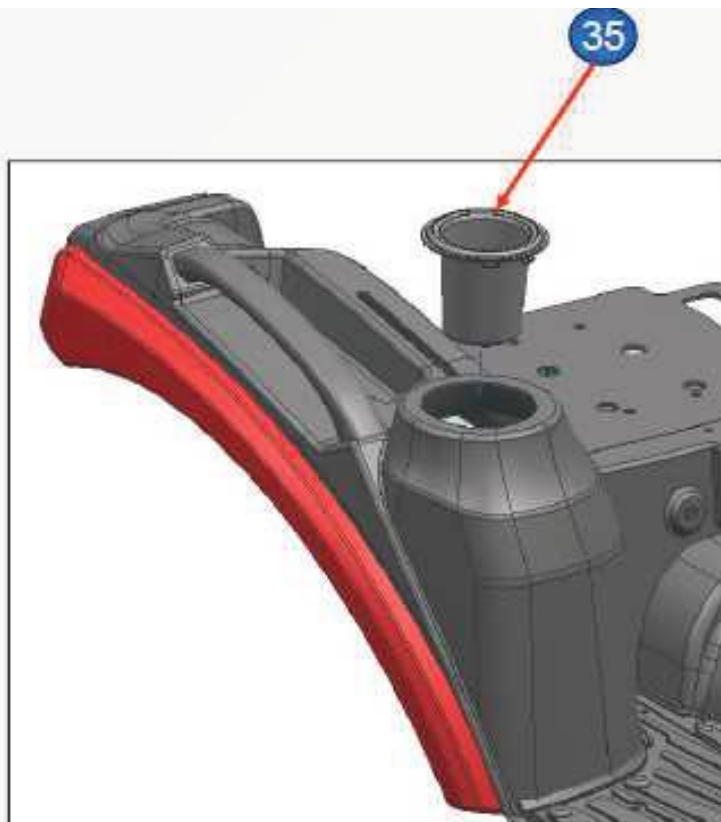
8. next step is to assembly No. 6, No.4 No.3, No.5. Followed by 21, 22, 24.

HYDRAULIC FITTING INSTRUCTION



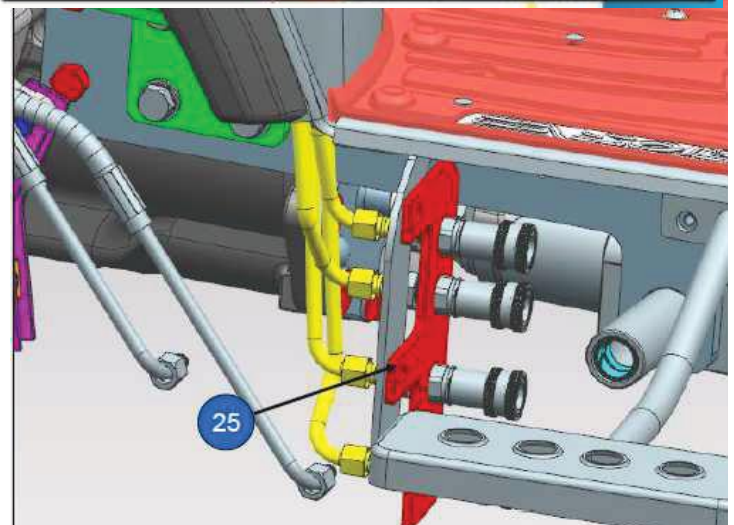
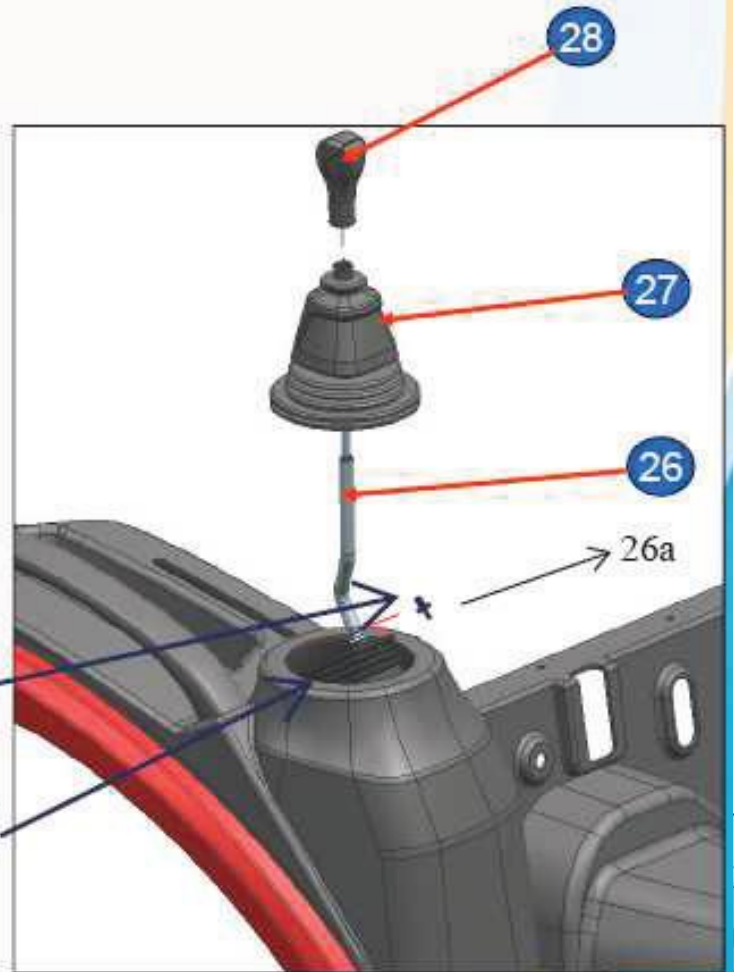
9. Assemble No. 20 , 21,22,23 Respectively,
The orientation is very important so there is no issues with tire fouling..

HYDRAULIC FITTING INSTRUCTION

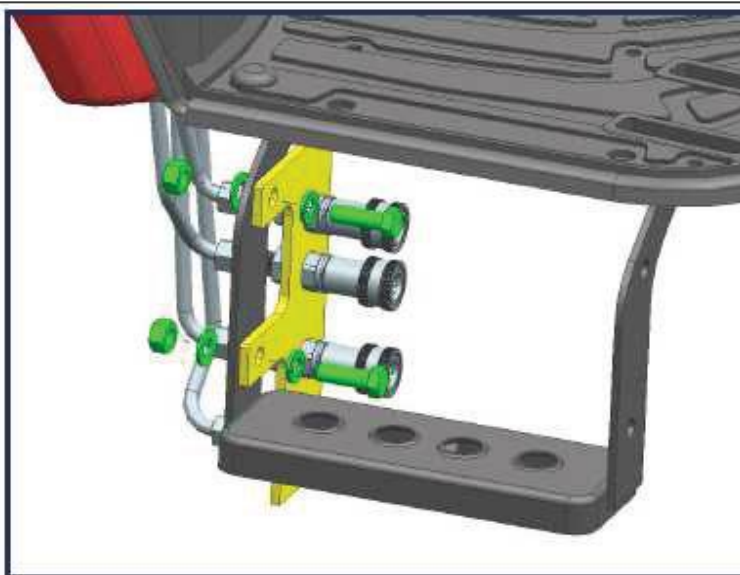
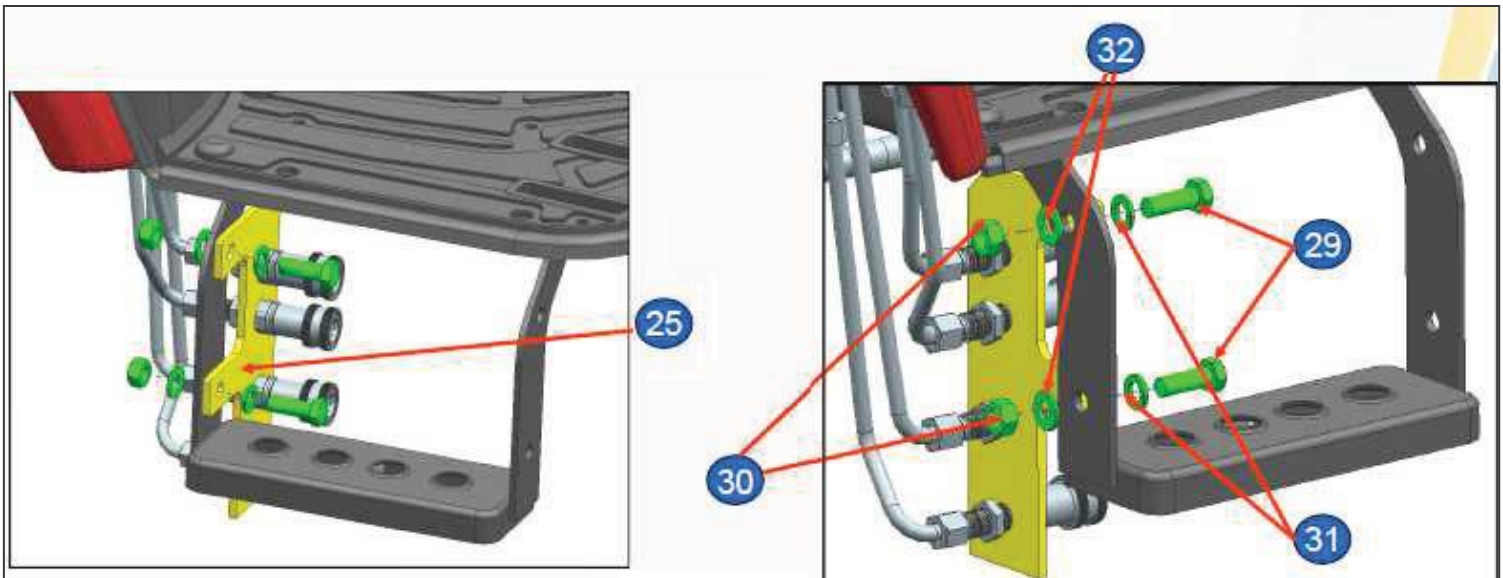


10. Assemble the joystick with a adap
26a-01-1211

11. Use the nut to lock the joystick lever in position
12. Push the boot into the lever and mate it with the
cup holder spout lining
13. Assemble the knob.no 28.



HYDRAULIC FITTING INSTRUCTION



RED
YELLOW
BLUE
GREEN



NOTE:

14. AFTER THE QRC ASSEMBLY KINDLY ASSEMBLY THE CABLE TIES, AS SHOWN ABOVE.

15. Use a cable tie to hold the hose in this area



Refer user manual for torque charts

HYDRAULIC FITTING INSTRUCTION

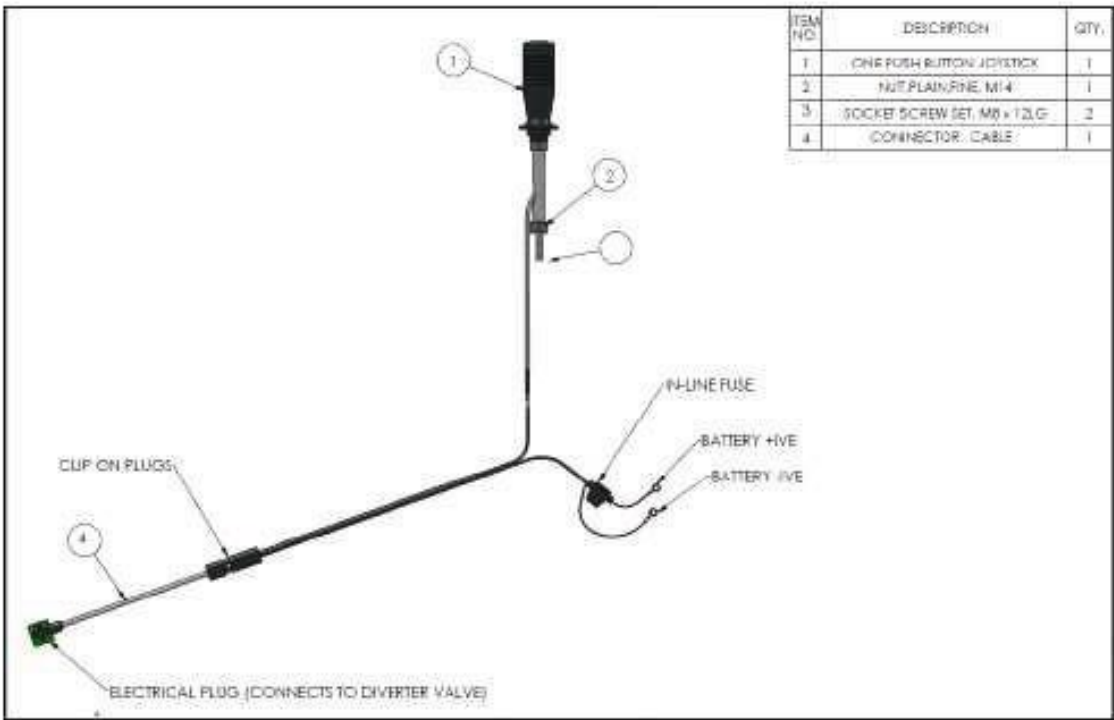
WIRING CONNECTIONS TO THE TRACTOR SOLIS 24/26 HST ROPS

Note: This tractor has three configurations.

Tractor in built DCV mounted on the fender for Loader with third function.

This document explains wiring connections to the tractor joystick.

A wiring kit is supplied with KIT, which must be connected to the tractor.



HYDRAULIC FITTING INSTRUCTION

- Connect the -ve and +ve terminals of the wire to the tractor battery terminals.



- Route the wire along the wire available on the tractor and fix with tags. Wiring kit is supplied with KIT, which must be connected to the tractor.
- On the fender joystick remove the company fitted knob.
- Install the "Indemar make" push button joystick knob on the handle.
- Insert the wire through the rubber boot.
- Connect the joys wire to the wire kit supplied
- Route the wires to avoid interference with any moving parts and High thermal contacts.

Route the wire so it does not rub or is in contact with high temp parts.

Use cable ties where ever necessary.



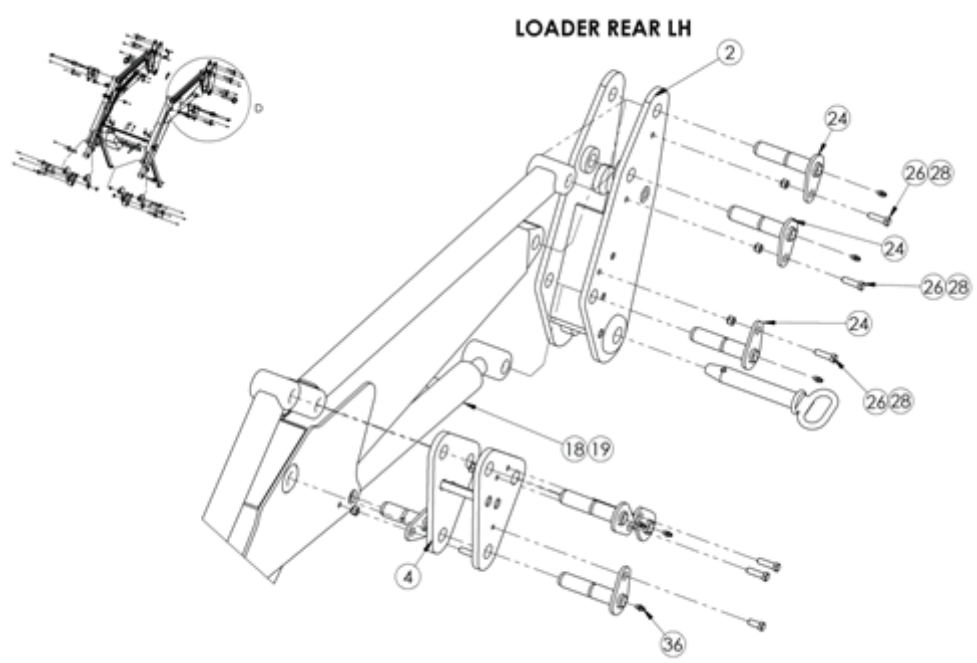
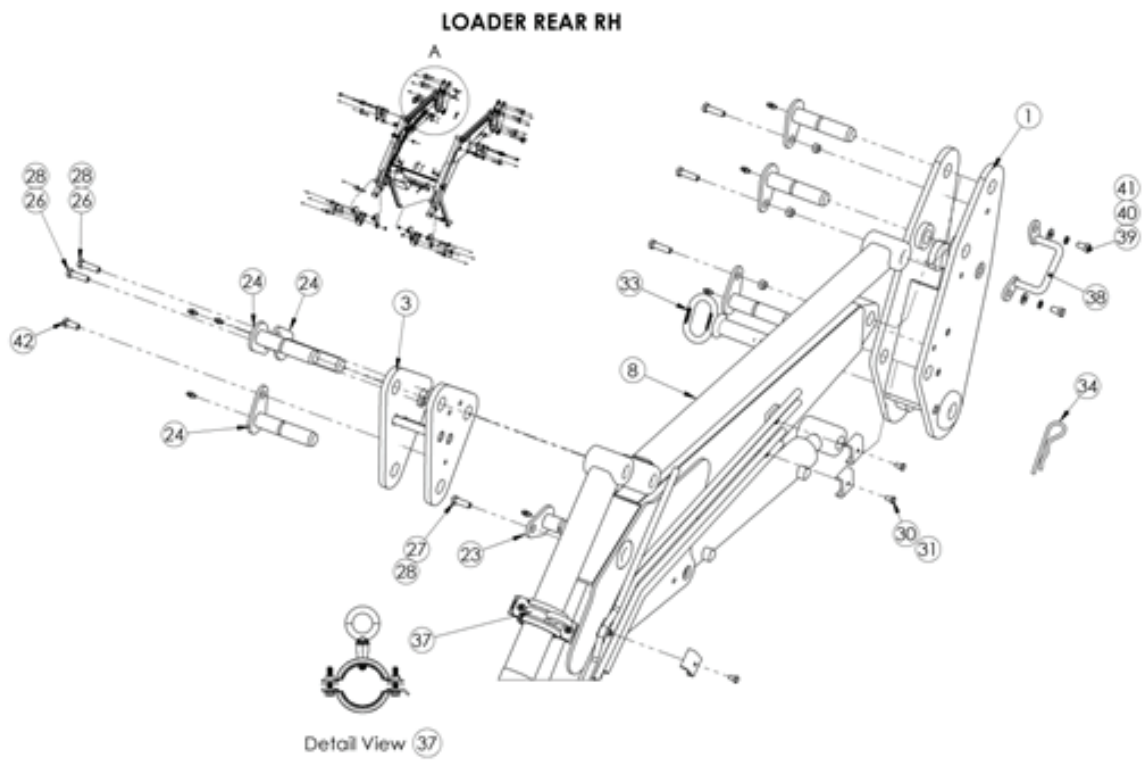
HYDRAULIC FITTING INSTRUCTION

Assembly images for reference.



SPARE PARTS ORDER DETAILS

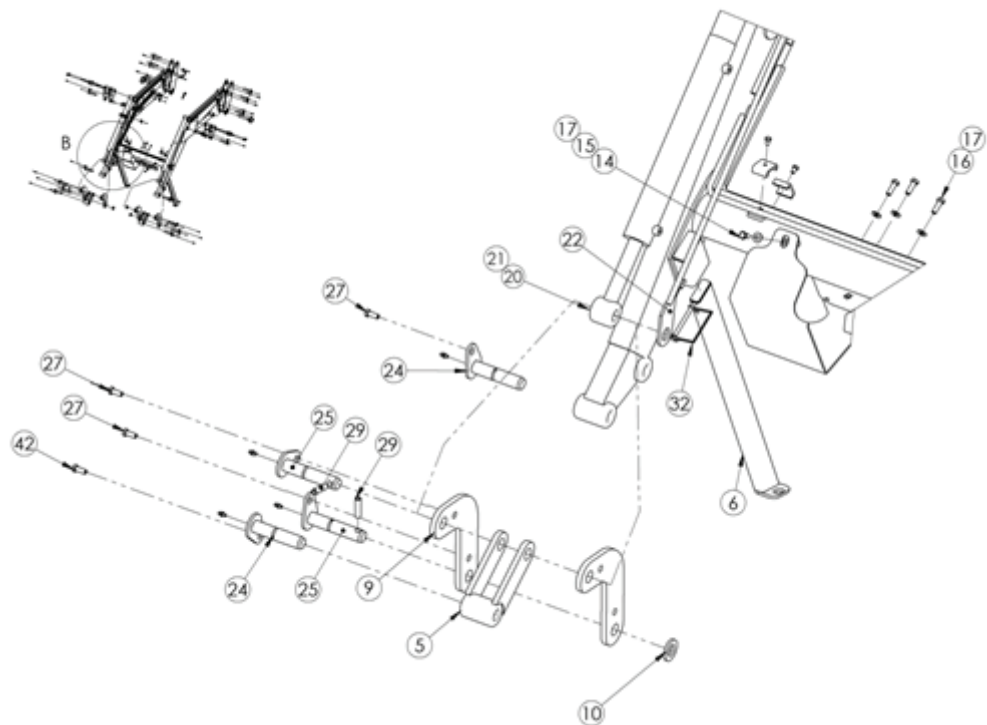
○ FEL ASSEMBLY PART DETAILS



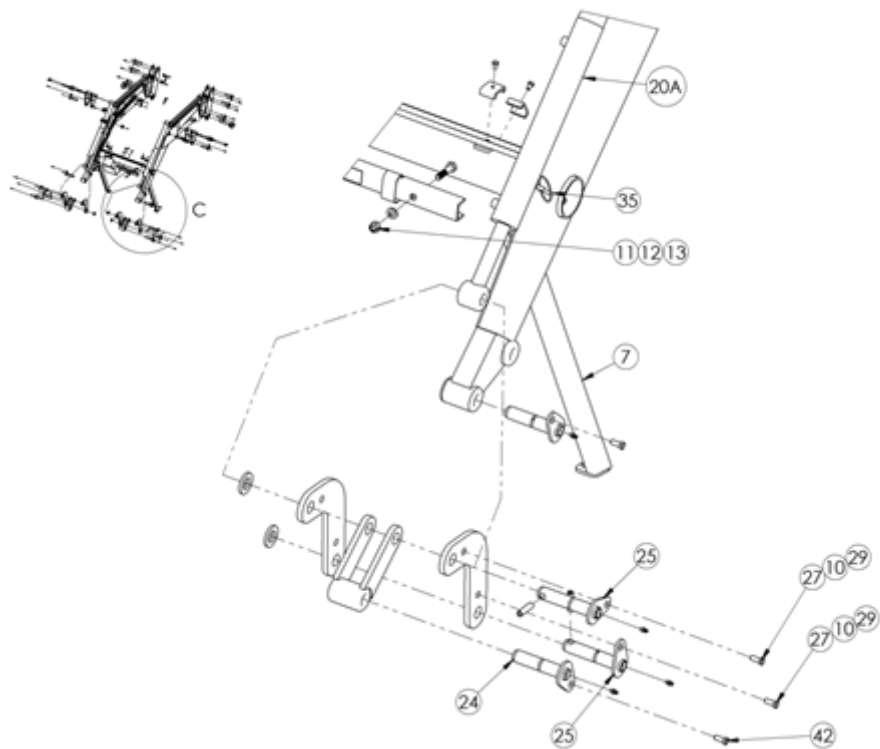
SPARE PARTS ORDER DETAILS

○ FEL ASSEMBLY PART DETAILS

LOADER FRONT RH



LOADER FRONT LH



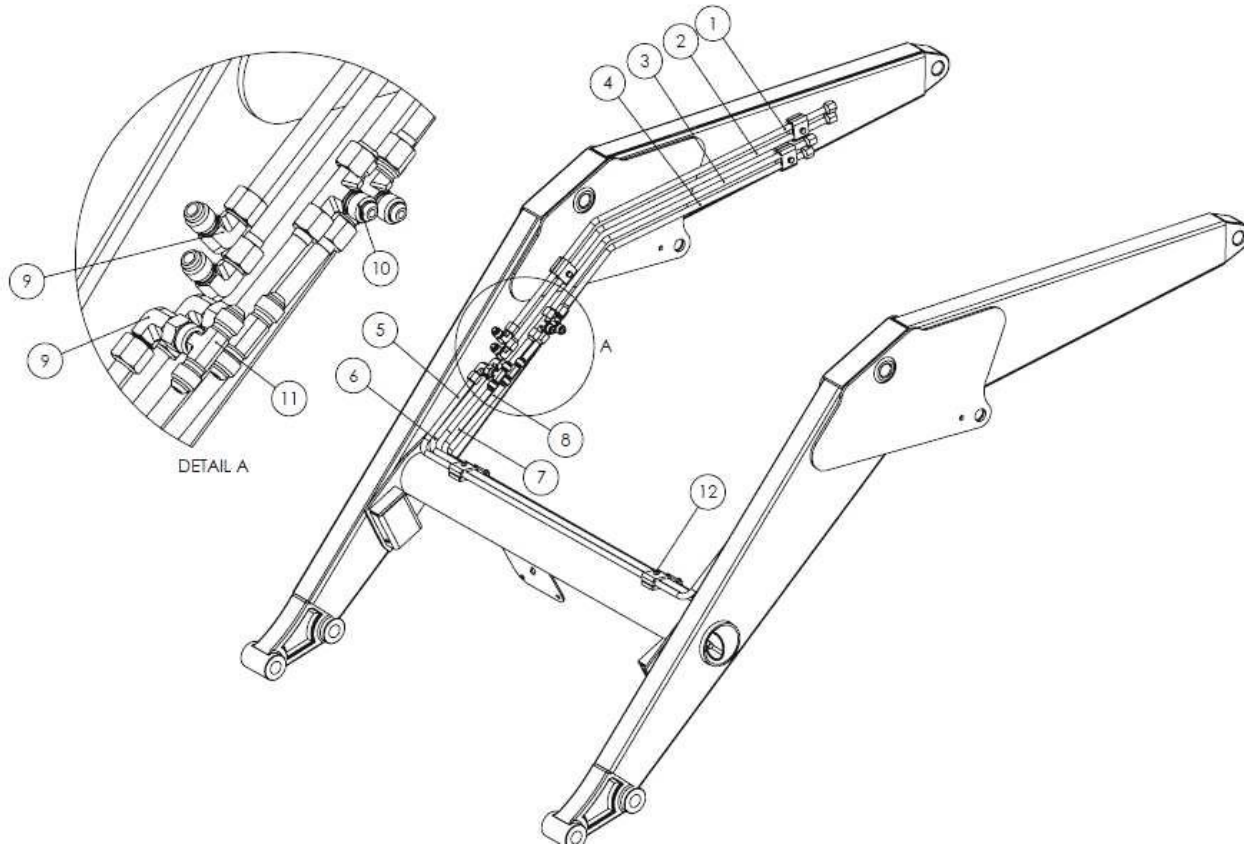
SPARE PARTS ORDER DETAILS

○ FEL ASSEMBLY PART DETAILS

ITEM NO.	PART NUMBER	PART DESCRIPTION	QTY.
1	S1130600613	RH POST CAP	1
2	S1130600614	LH POST CAP	1
3	S1130600615	RH MIDDLE ROCKER	1
4	S1130600616	LH MIDDLE ROCKER	1
5	S1130600446	FRONT LINK ASSEMBLY	2
6	S1130600447	LEG ASSEMBLY RH	1
7	S1130600448	LEG ASSEMBLY LH	1
8	S1130600619	RH & LH SL LINK ASSEMBLY 3200	2
9	S1130600449	Front rocker/ Side plate	4
10	S1130600450	SPACER 391	3
11	S1130600451	PROP ASSEMBLY	1
12	S1130600452	NYLOC NUT M10×1.5	1
13	S1130600453	PLAIN WASHER M10	1
14	S1130600621	MANIFOLD COVER	1
15	S1130600464	HEX. BOLT M8×1.25×20 SEMI THREAD	1
16	S1130602674	HEX. FLANGE SHOULDER BOLT M8×1.25×30 SEMI THREAD	1
17	S1130600466	PLAIN WASHER M8	4
18	S1130600454	HYD. LIFT CYLINDER	2
19	S1130601263	LIFT CYLINDER SEAL KIT	2
20	S1130600063	HYD.CYLINDER TILT RH 3200 (Indicator Plate Weld type)	1
20A	S1130600622	HYD.CYLINDER TILT 3200	2
21	S1130601263	TILT CYLINDER SEAL KIT	2
22	S1130600457	LEVEL INDICATOR ASSEMBLY	1
23	S1130600461	GREASABALE PIN ASSEMBLY 287	2
24	S1130600459	GREASABALE PIN ASSEMBLY 284	16
25	S1130600460	GREASABALE PIN ASSEMBLY 297	4
26	S1130602674	HEX. FLANGE SHOULDER BOLT M8×1.25×30 SEMI THREAD	1
27	S1130602676	HEX. FLANGE SHOULDER BOLT M8×1.25×20 SEMI THREAD	1
28	S1130600554	NYLOC NUT M8×1.25	12
29	S1130600006	SPRING DOWEL	4
30	S1130600468	CLAMP COVER	7
31	S1130600469	HEX. BOLT M6×1×10 SEMI THREAD	7
32	S1130600470	SQUARE LOOP PIN	2
33	S1130600471	FORGED PIN	2
34	S1130600472	PIN	2
35	S1130600473	LYNCH PIN	2
36	S1130600474	GREASE NIPPLE GN14	22
37	S1130602945	Level indicator clamp assembly	1
38	S1130602946	Hose Holder Bracket	1
39	S1130602947	HEX. BOLT M8×1.25×15 SEMI THREAD	2
40	S1130600466	PLAIN WASHER M8	2
41	S1130600687	SPRING WASHER M8	2
41	S1130600687	HEX. FLANGE SHOULDER BOLT M8×1.25×15 SEMI THREAD	1

SPARE PARTS ORDER DETAILS

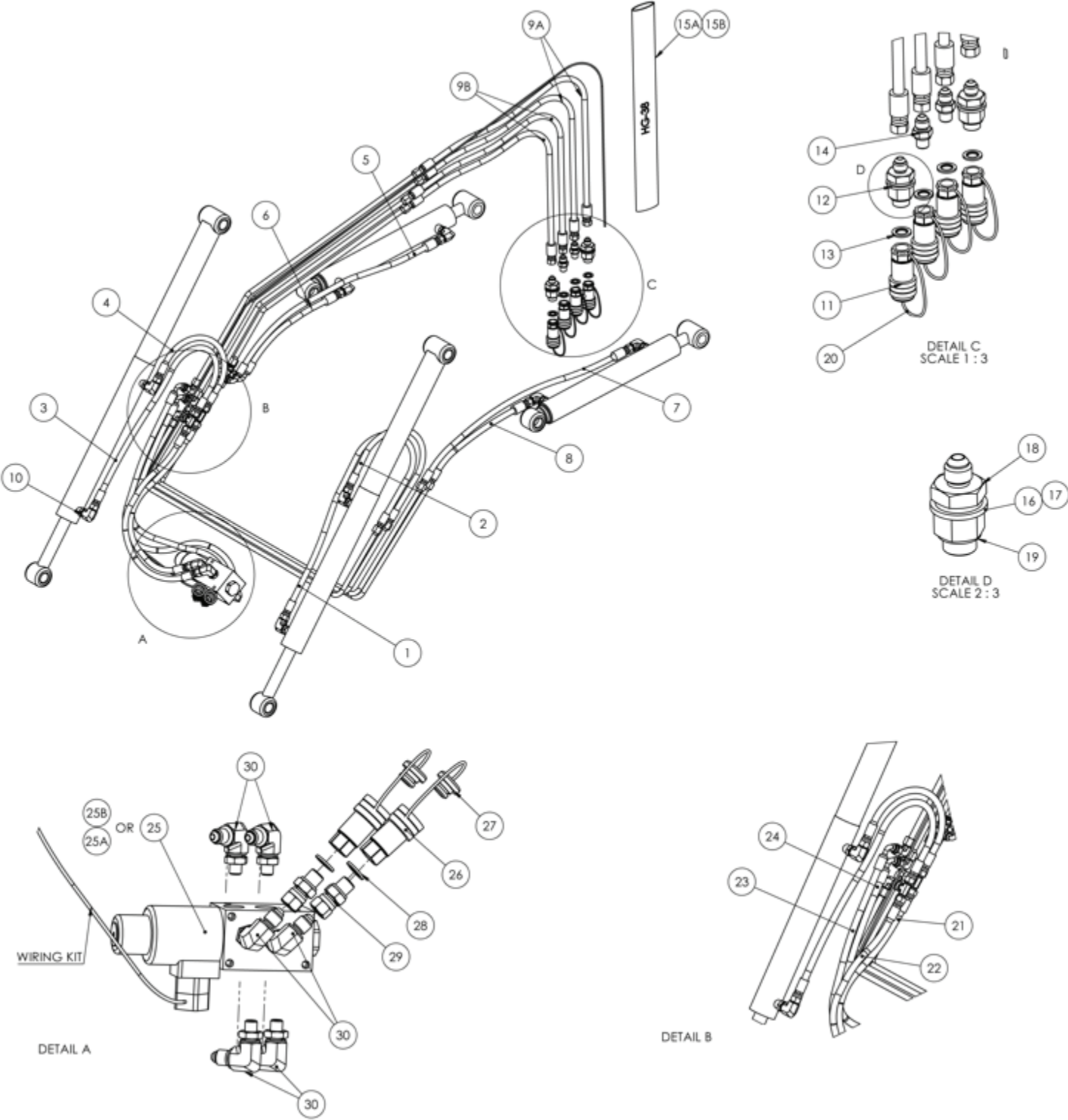
○ FEL HYDRAULIC PIPE FITTINGS AND CLAMPS PART DETAILS



ITEM NO.	PART NUMBER	PART DESCRIPTION	STANDARD	3RD FUNCTION
			QTY.	QTY.
1	S1130600496	CROWD PIPE 131	1	0
1	S1130600623	CROWD PIPE 146	0	1
2	S1130600497	DUMP PIPE 132	1	0
2	S1130600626	DUMP PIPE 147	0	1
3	S1130600498	LOWER PIPE 133	1	1
4	S1130600499	RAISE PIPE 134	1	1
5	S1130600500	CROWD PIPE 127	1	1
6	S1130600501	DUMP PIPE 128	1	1
7	S1130600502	LOWER PIPE 129	1	1
8	S1130600503	RAISE PIPE 130	1	1
9	S1130600008	0909 JICM JICM ELBOW	0	4
10	S1130600487	9/16"JICM 9/16" JICM 9/16"JICM TEE	4	2
11	S1130602948	090909 JICM JICM JIC FEMALE TEE	0	2
12	S1130600468	CLAMP COVER	11	11

SPARE PARTS ORDER DETAILS

○ FEL HYDRAULIC HOSE AND ADAPTORS PART DETAILS

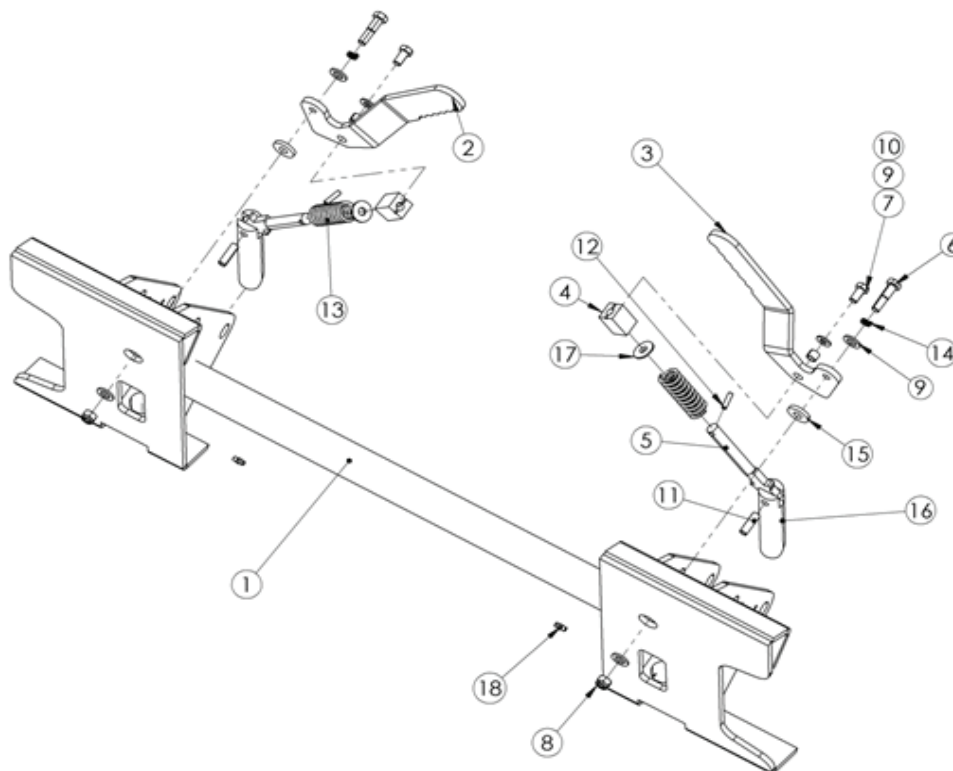


SPARE PARTS ORDER DETAILS

ITEM NO.	PART NUMBER	PART DESCRIPTION	STANDARD	3RD FUNCTION
			QTY.	QTY.
1	S1130600475	HOSE H225-700MM CUT LENGTH	1	1
2	S1130600476	HOSE H226-400MM CUT LENGTH	1	1
3	S1130600477	HOSE H227-700MM CUT LENGTH	1	1
3	S1130602949	HOSE T227-700MM CUT LENGTH	0	1
4	S1130600478	HOSE H228-400MM CUT LENGTH	1	1
4	S1130602950	HOSE T228-400MM CUT LENGTH	0	1
5	S1130600479	HOSE H229-620MM CUT LENGTH	1	1
6	S1130600480	HOSE H230-300MM CUT LENGTH	1	1
7	S1130600481	HOSE H231-620MM CUT LENGTH	1	1
8	S1130600482	HOSE H232-300MM CUT LENGTH	1	1
9a	S1130602695	HOSE H233A-1150MM CUT LENGTH	2	2
9b	S1130602696	HOSE H233B-1200MM CUT LENGTH	2	2
10	S1130600484	9/16" JIC M 1/4" BSPPOM NW 90° ELBOW	8	8
11	S1130600489	3/8" BSPPF FEMALE QRC /POPPET	4	4
12	S1130600113	ORIFICE ADAPTOR ASSY	2	2
13	S1130600492	06 DOWTY SEAL	4	4
14	S1130600485	3/8" BSPPOM 9/16"JICM NIPPLE	4	4
15a	S1130602697	WOVEN NYLON HOSE GUARD -1150mm Lg	2	2
15b	S1130602698	WOVEN NYLON HOSE GUARD -1200mm Lg	2	2
16	S1130600493	08 DOWTY SEAL	2	2
17	S1130600494	ORIFICE PLATE 1.2MM HOLE DRILL	2	2
18	S1130600486	1/2" MALE BSPP 9/16" MALE JIC	2	2
19	S1130600488	3/8" MALE BSPP 1/2" FEMALE BSPP	2	2
20	S1130600490	RUBBER DUST PLUG	4	4
21	S1130602951	HOSE T234-370MM CUT LENGTH	0	1
22	S1130602952	HOSE T235-390MM CUT LENGTH	0	1
23	S1130602953	HOSE T236-655MM CUT LENGTH	0	1
24	S1130602954	HOSE T237-580MM CUT LENGTH	0	2
25	S1130600646	DIVERTER VALVE - DFE 80	0	2
25A	S1130602959	DIVERTER VALVE - Hydro kit	0	1
25B	S1130602958	0409 BSPPOM JICM NIPPLE	0	3
26	S1130600489	3/8" BSPPF FEMALE QRC /POPPET	0	2
27	S1130600490	RUBBER DUST PLUG	0	2
28	S1130600492	06 DOWTY SEAL	0	2
29	S1130600647	3/8"BSPPOM & 9/16 " JIC FEMALE ADAPTER	0	2
30	S1130600010	3/8" BSPPOM 9/16"JICM 90° ELBOW	0	6

SPARE PARTS ORDER DETAILS

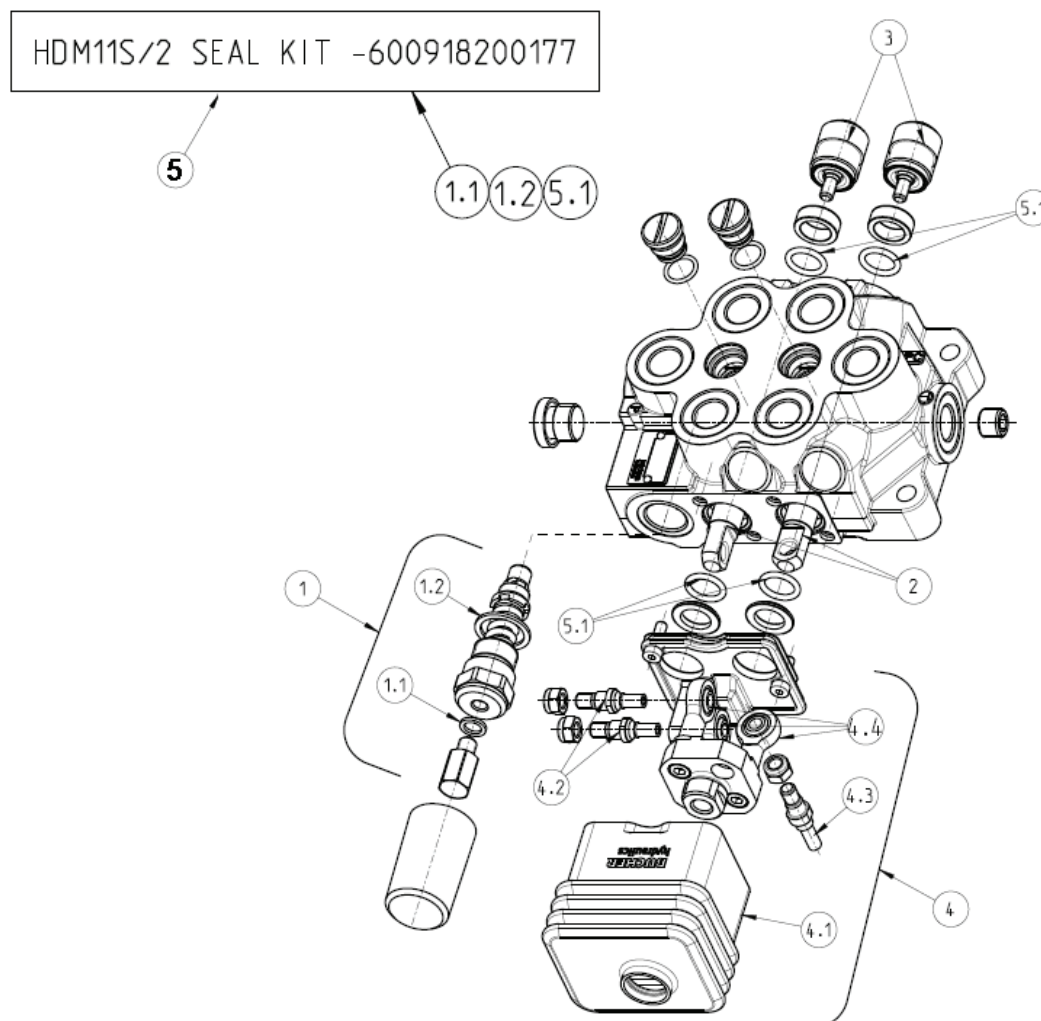
○ Skid Steer Hitch Details



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	S1130600504	SKID STEER	1
2	S1130600505	HANDLE RH	1
3	S1130600506	HANDLE LH	1
4	S1130600507	PIVOT BLOCK	2
5	S1130600508	CONNECTIG ROD	2
6	S1130600509	HEX. BOLT M10×1.5×45	2
7	S1130600510	HEX. BOLT M10×1.5×20	2
8	S1130600452	NYLOC NUT M10×1.5	2
9	S1130600453	PLAIN WASHER M10	6
10	S1130600513	PIPE WASHER H11	2
11	S1130600514	DOWEL Ø10×32	2
12	S1130600515	DOWEL Ø6×25	2
13	S1130600516	SPRING	2
14	S1130600517	DOUBLE HELICAL WASHER M12	2
15	S1130600518	FRICTION PAD	2
16	S1130600519	WEDGE PIN	2
17	S1130600520	CUP WASHER	2
18	S1130600474	GREASE NIPPLE GN14	2

SPARE PARTS ORDER DETAILS

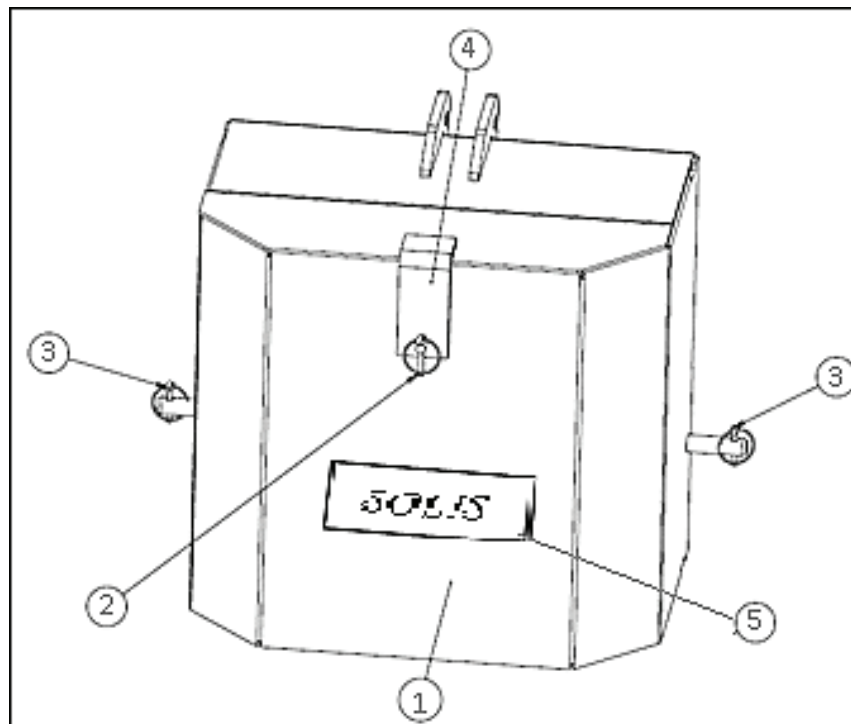
○ Valve Internal Parts Details



Sl No	ITL Part Nos.	Description	Part No
1	S1130602679	Spool O-ring, Copper washer for RV 10	600918200177
2	S1130600888	VM01 RELIEF VALVE	600114200033
3	S1130600887	SPOOL A"	600111300277
4	S1130600889	POSITIONER - 01	600114200043
5	S1130600890	L247 JOYSTICK ASSEMBLY HDM11S	600113200645
6	S1130600443	Rubber Boot	600113301135
7	S1130602680	HDM11S Fulcrum Pin + bearing	600113200116
8	S1130602681	Flurcum Pin 2nd Spool HDM11P	600111300270
9	S1130602682	Spherical Bearing M6x1	600915300051

SPARE PARTS ORDER DETAILS

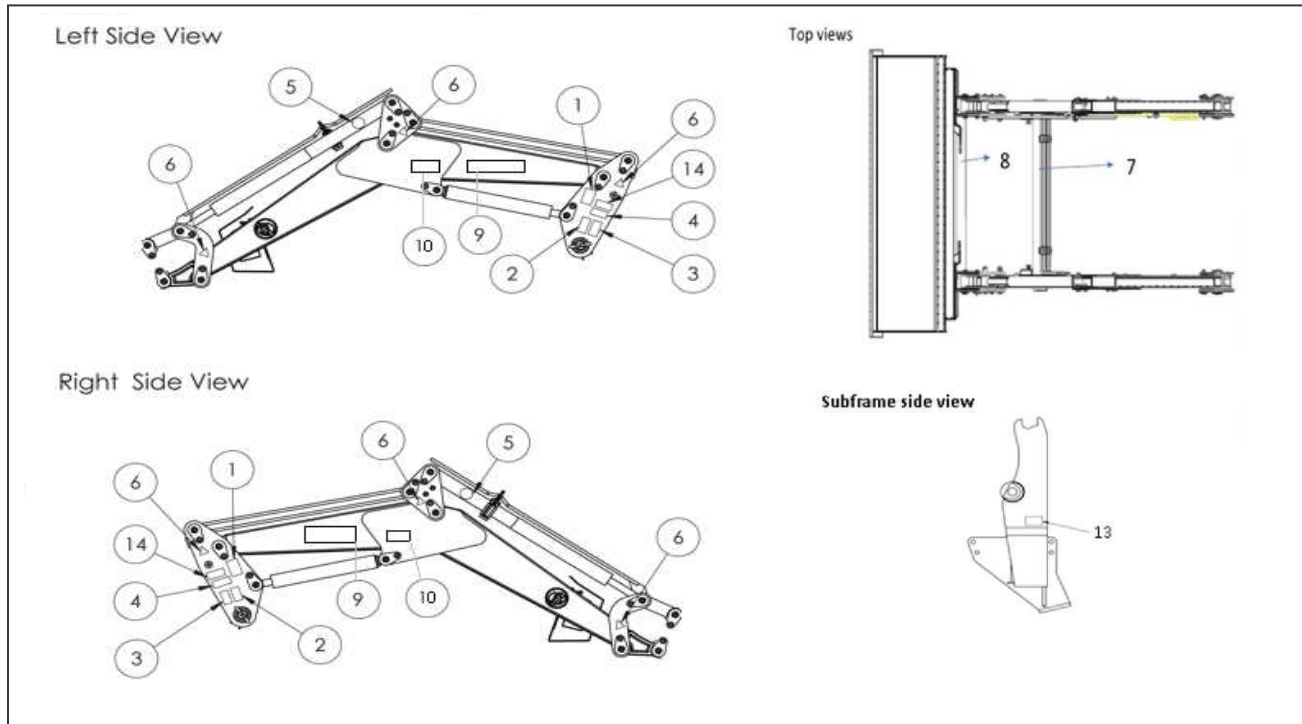
- Counter Weight Box, Cat I 300 Kg.



ITEM NO.	PART NUMBER	PART DESCRIPTION	QTY.
1	S1130601325	300 KG COUNTERWEIGHT	1
2	S1130600660	LYNCH PIN LP 03	1
3	S1130601306	LYNCH PIN LP 06	2
4	S1130601307	LOCK PLATE	1
5	S1130600583	SOLIS STICKER	1

SPARE PARTS ORDER DETAILS

○ Loader Decals



Refer to decals details available on Page 12,13 & 14.

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	S1130600575	CRUSHING HAZARD LABEL STICKER	2
2	S1130600576	CARRY PASSENGER LABEL STICKER	2
3	S1130600577	READ THE OPERATOR MANUAL LABEL STICKER	2
4	S1130600578	STAY CLEAR OF RAISED LOADER LABEL STICKER	2
5	S1130600579	LIFTING POINT LABEL STICKER	2
6	S1130600580	PINCH POINT LABEL STICKER	6
7	S1130600581	WARNING STICKER	1
8	S1130600582	WARNING LABEL STICKER	1
9	S1130602955	SUMMIT	2
10	S1130602956	LX85	2
11	S1130600585	LOADER MOVEMENTS DIRECTION STICKER	1
12	S1130600586	LOADER MOVEMENTS WITH THIRD FUNCTION STICKER	1
13	S1130601318	TORQUE WARNING STICKER	2
14	S1130602957	WARNING STICKER CP65	2

ITEM No.9



ITEM No.10



ITEM No.11



ITEM No.12



ITEM No.13

