## **HARSH Hookloader**

## **Spare Parts & Maintenance Manual**

Edition 2017





## **SPARE PARTS**



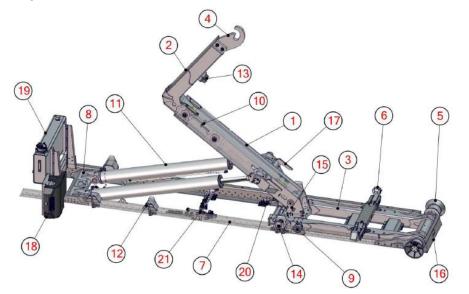
service



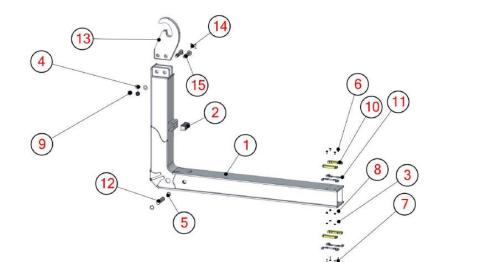


### **Spare Parts Identification**

Parts denomination diagram for HH26 model



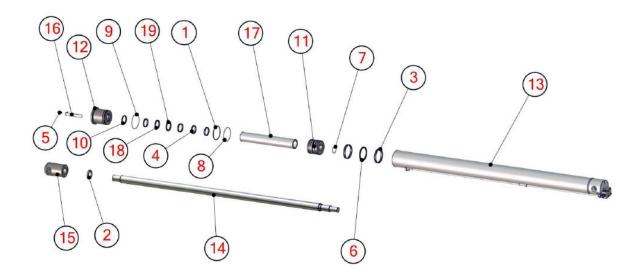
ID	DESCRIPTION	ID	DESCRIPTION	ID	DESCRIPTION
1	CENTRAL BODY	8	HOISTING CYLINDERS CROSS MEMBER	15	COUNTER HOOKS
2	SLIDING ARM	9	ROTATION CENTRE	16	HEAD STOCK
3	REARFRAME	10	SLIDING CYLINDER	17	FORKS
4	HOOK	11	HOISTING CYLINDERS	18	FLOW CONTROL
5	CONTAINER GUIDE ROLLERS	12	CONTEINER GUIDES	19	FRONTAL OIL TANK
6	CONTAINER LOCKING	13	RUBBER STOPPER	20	INTERLOCK 2 WAYS
7	REARFRAME	14	CONT. GUIDE ROLLERS	21	INTERLOCK 3 WAYS



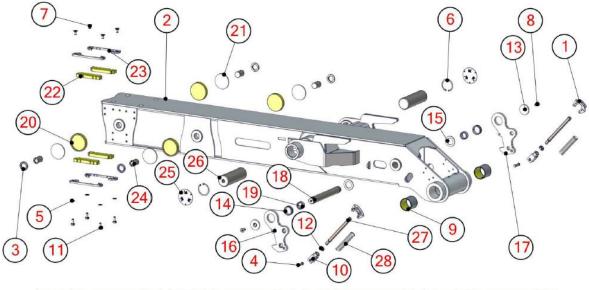
ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty
1	SIT20SF007	1	7	ISO10642 M12x45	4	13	SGIT26CH1	1
2	35.0027	1	8	ISO4032 M12	4	14	SIT20SF20	1
3	DIN 6798-A13	4	9	ISO7040 M27	2	15	SSF26UMP6	2
4	DIN125 B27	2	10	SCM0192	4		nt	
5	DIN472 45x1.75	2	11	SCM0195	4			
6	DIN7991 M12x25	4	12	SCM0250	1			







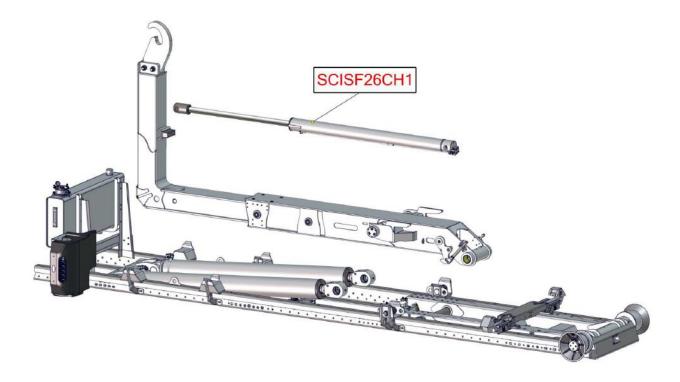
ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty
1	AP 243	1	8	O-RING 243	1	15	SCI00144	1
2	GH50X2	1	9	O-RING 244	1	16	SCI00161	1
3	GRF 105 110 15	2	10	SA 60	1	17	SCI00197	1
4	GRF 60 65 9.7	4	11	SC100055	1	18	SD 60 70 7	1
5	ISO4016 M10x16	1	12	SCI00059	1	19	XB 60 75.1 6.3	1
6	KPD 110 94.5 6.3	1	13	SC100060	1			
7	O-RING 226	1	14	SCI00094	1			

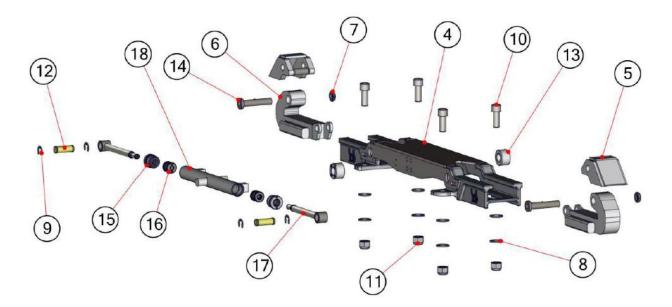


ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty
1	SCM00027	2	9	EKX 80 80	2	17	SCM0096	1	25	SDFP0001A	2
2	SIT20CC7006	1	10	FFF12404	2	18	SCM0107	1	26	SIT20CC20	2
3	23146	4	11	ISO4016 M14x30	4	19	SCM0108	2	27	SL3CCT59	2
4	3160101757	2	12	ISO8675 M20x1.5	2	20	SCM0190	4	28	SLTMCG02	2
5	DIN 6798-A15	4	13	SCC12025	2	21	SCM0191	4	15		(C
6	DIN472 80x2.5	2	14	SCC26UM35A	2	22	SCM0192	4			
7	DIN7991 M14x25	4	15	SCC26UM61-6	2	23	SCM0194	4			
8	DIN7991 M14x30	2	16	SCM0095	1	24	SCM0278	4			





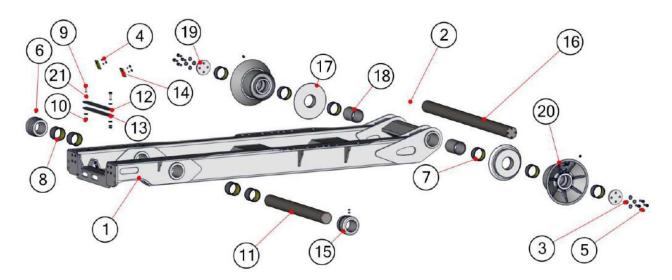




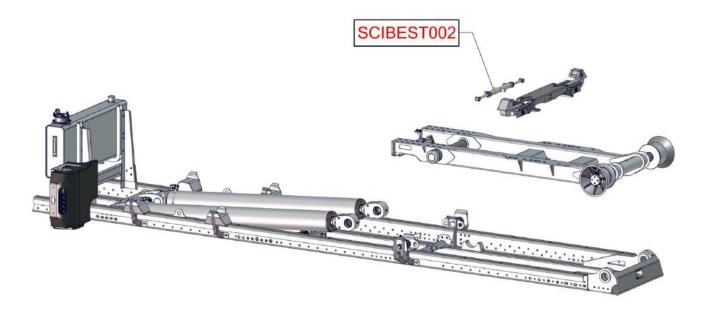
ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty
4	SBENIT05	1	10	DIN912 M24x60	4	16	SC100002	2
5	SBITD0001	2	11	ISO7040 M24	4	17	SC100004	2
6	SBL26CH001	2	12	SBEIT012	2	18	SCI00198	1
7	23610	2	13	SBENIT02	2		25	
8	DIN125 B25	8	14	SBITD011	2			
9	DIN6799 19	4	15	SCI00001	2			





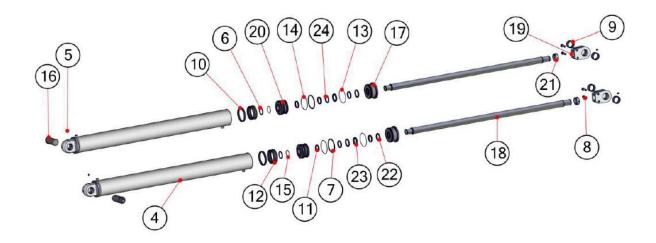


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1	STL260001	1	9	ISO4016 M12x40	2	17	SCT11506	2
2	0510100101	3	10	ISO7040 M12	2	18	STN26UBB1	2
3	DIN125 B 13	8	11	SCC26UMP2	1	19	STT26MP1BISA	2
4	DIN7991 M8x25	4	12	SCM0016	1	20	T002	2
5	DIN912 M12x35	8	13	SCM0017	1	21	Washer DIN125 B 13	4
6	DIN914 M12x25	2	14	SCM0031	2	ð		33
7	EKX 80 40	6	15	SCM0039	2			
8	EKX 80 60	4	16	SCT11505	1			

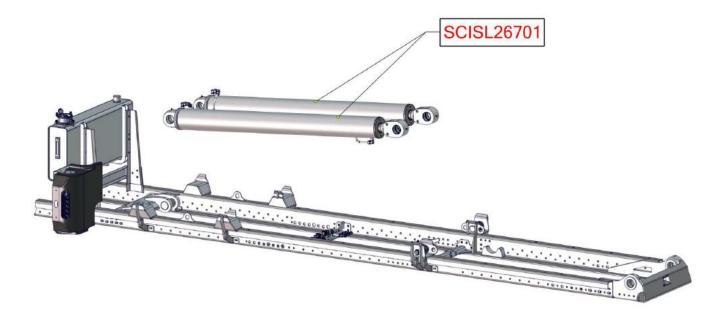






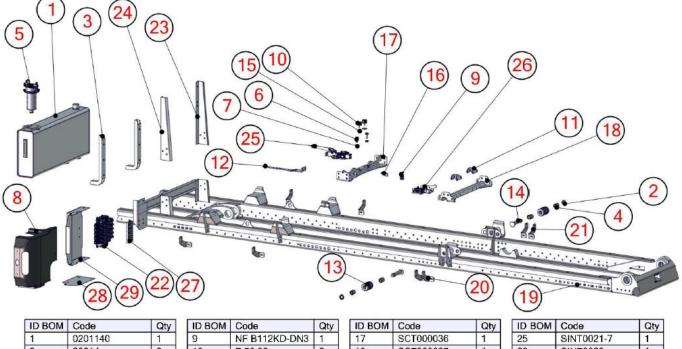


ID BOM	Code	Qty	ID BOM	Code	Qty	ID BOM	Code	Qty
4	SCISL267C1	2	12	KGD 170 145	2	20	SCI00225	2
5	0510100101	4	13	O-RING 260	2	21	SCI00246	2
6	AP 338-620	2	14	O-RING 362	2	22	SWP8095	2
7	AP 362	2	15	O-RING 620	2	23	UP 80 95 12	2
8	DIN912 M20x60	4	16	SCC26UMP3	2	24	XB 80 95.1 6.3	2
9	EKU 80 40	4	17	SCI00171	2			
10	FE 170	2	18	SCI00172	2			
11	GRF 80 85 9.7	6	19	SCI00218	2			









ID BOW	Code	Qty	ID BOW	Code	Qity	ID BOW	Code	Qty
1	0201140	1	9	NF B112KD-DN3	1	17	SCT000036	1
2	23614	2	10	P 50 30	2	18	SCT000037	1
3	950201140	2	11	SCM0015	2	19	SCT000044	1
4	EKX 40 40	4	12	SCM0217	1	20	SCT00143	4
5	HHR20406	1	13	SCM0245	2	21	SCT00145	4
6	ISO4016 M20x40	2	14	SCM0246	2	22	SDS150-4	1
7	ISO4035 M20	2	15	SCM0259	2	23	SFSDS003SD	1
8	N01	1	16	SCM0260	1	24	SFSDS003SS	1

ID BOM	Code	Qty
25	SINT0021-7	1
26	SINT0023	1
27	SP778053520	1
28	VAOFF268	1
29	VAOFF269	1

### Front Oil Tank













# MAINTENANCE



service





Maintenance should be carried out by trained professionals only and all health and safety checks listed in this manual along with site health and safety processes should be adhered to at all times. It is imperative before works are carried out on the Hooklift equipment safe and the environment is secure.

### **Routine Maintenance**

Routine maintenance should be carried out by a trained competent professional and adhere strictly to all health and safety procedures and risk assessments.

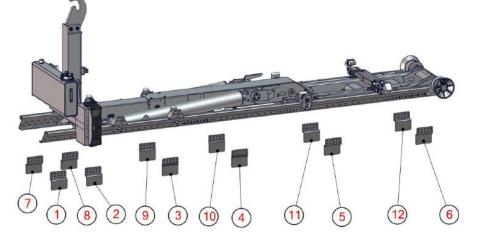
The routine maintenance guide provided is calculated for a single person in a standard workshop for the entire maintenance cycle. It is anticipated the total time to carry out the routine maintenance listed should be between 60-90 minutes.

### What to check for on Routine Maintenance

This section provides a helpful guide on the items to check when maintaining the HH26 Hookloader equipment.

### Chassis to Hooklift connecting/mounting plates

After the first 30-40 working hours perform a complete check on the fixation plates, bolts and nuts with specific attention to the front cylinders cross member connection plate.



ID	POSITION	MATERIAL	BOLTS	TORQUE
1	Start underframe	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
2	Cross member attachment hoisting cylinder	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
3	Cross member support central body	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
4	Central underframe	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
5	Rotation center S355-ST52 Min. No.5 M14x50 Class 10.9		198 Nm	
6	End underframe	End underframe S355-ST52 Min. No.5 M14x50 Class 10.9		198 Nm
7	Start underframe	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
8	Cross member attachment hoisting cylinder	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
9	Cross member support central body	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
10	Central underframe	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
11	Rotation center	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm
12	End underframe	S355-ST52	Min. No.5 M14x50 Class 10.9	198 Nm

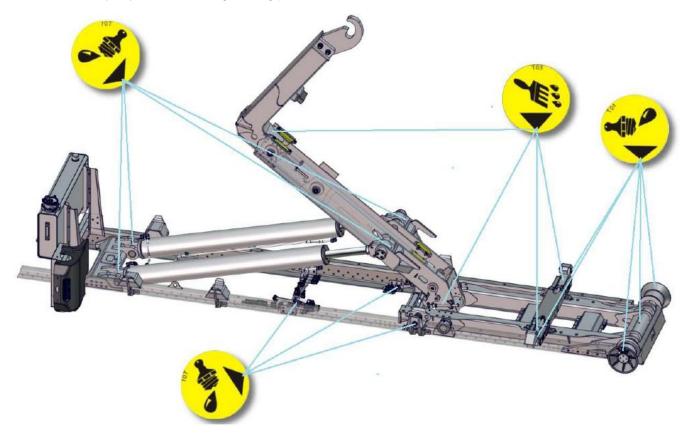
Required time 10-15 minutes.





### Greasing

Every 60 hours of operating time, and not longer than every 3 months, perform complete equipment washing and greasing. Remember to grease; sliding pads, rotation half moons, interlock, mechanical safety lock spring hooks, hook security, hydraulic locking sliding jaws and rear rollers.



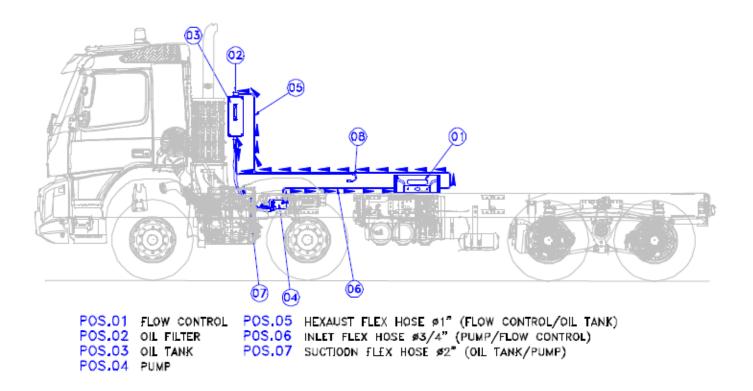
Required time 15 minutes





### **Hydraulic Circuit**

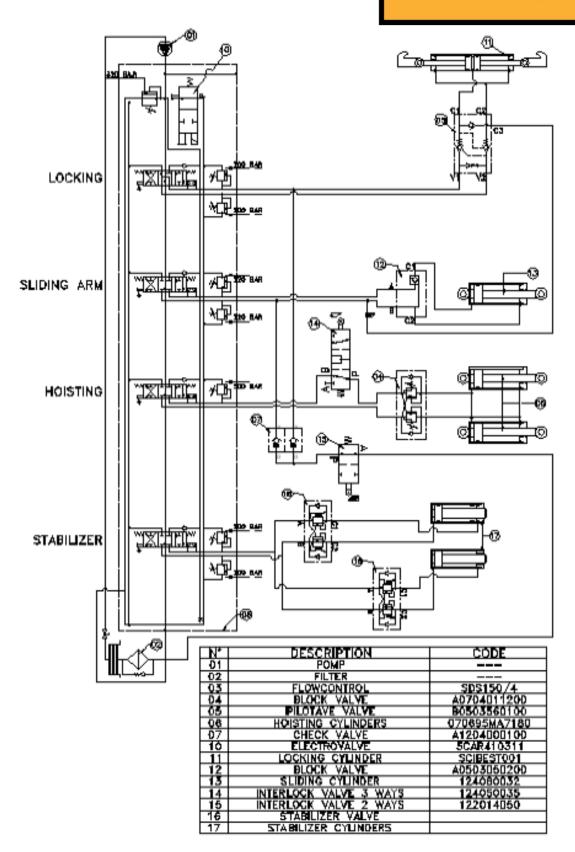
Every 60 hours of operating time, and not longer than 3 months, check carefully the hydraulic circuit, flexible hoses and joints, flow control, suction hose, inlet high pressure hose and exhaust hose to verify hydraulic circuit component conditions, leaking or oil sweating. Consult the Oleo- dynamic system control diagram for info on the hydraulic circuit.



Required time 10 minutes







Rear Axle Jacks Stabilizer function - optional





### Pressure Gauge

Check pressure settings by a pressure gauge on the flow control on the inlet headstock. This should be between 280-300 bar.

The bin locks should be pressure tested at the same place. This should be 220-250 bar.

The stabilizer jacks (optional extra) should be pressure tested at the same place. This should be 220-250 bar.

### Required time 5 minutes

### **Hooklift Control Sequences**

Check the hydraulic circuit controls by performing opening and closing each hydraulic function from the cab control as well as any ground control levers or remote controls.

### Required time 5 minutes

### Cylinders

During loading and unloading operations check carefully the cylinder rods chromium plating condition and the seals condition, remove any dirt and dust from the cylinder protection ring.

### Require time 5 minutes

### Hydraulic Oil

Every 150 hours check and clean or change the oil filter cartridge. During this operation check carefully the quality of the oil and level. Adjusting the level if necessary.

### Required time 10 minutes

### Structural Controls

Every 3 months perform a complete careful structure control, checking welding on the Hooklift components with particular attention to the stress connections: cylinder cross members, rotation centre, rear headstock, hook bolts and nuts, hydraulic locking bolted supports.

### Required time 15 minutes

### **Electrical Circuit**

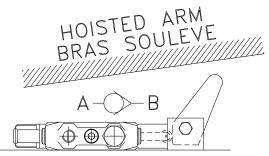
Hydraulic locking: perform hydraulic locking open / close and check the proximity switch fastening nuts. Verify that the locking warning light shows the non locked position (red LED). PTO Cab warning light: perform engage / disengage of the PTO switch positioned on the cab control board to verify the warning light function.

Required time 5 minutes

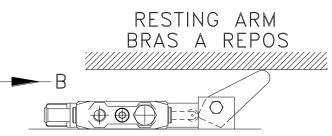




### **Hydraulic Safety Devices**



Interlock Valve close position container hydraulic Locking non active



Interlock valve open position container hydraulic locking activated

Check weekly the interlock valve, lubricating periodically the spring wheel cursor s pictured below.



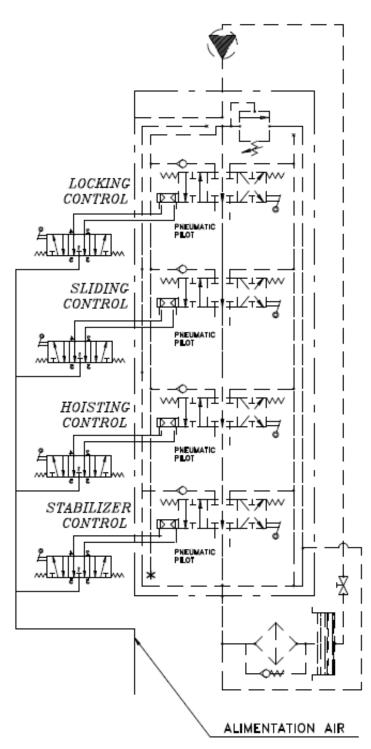
Required time 10 minutes





**System Diagrams** 

**Pneumatic Plan** 

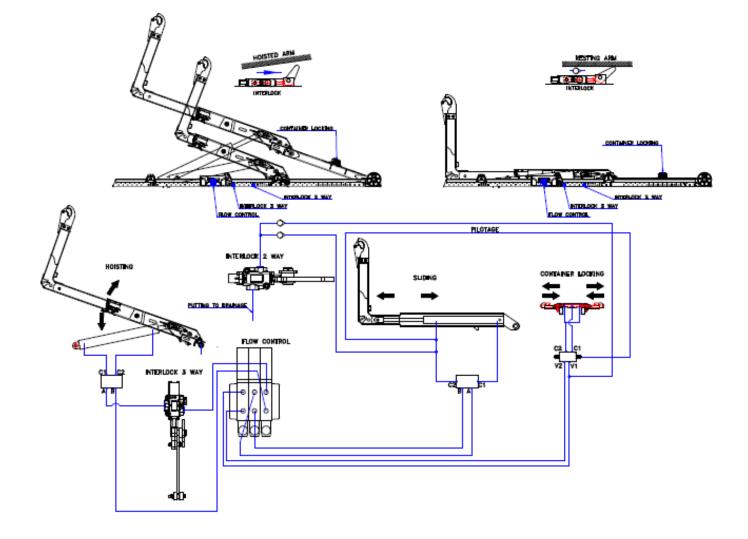


Rear Axle Jacks Stabilizer function - optional





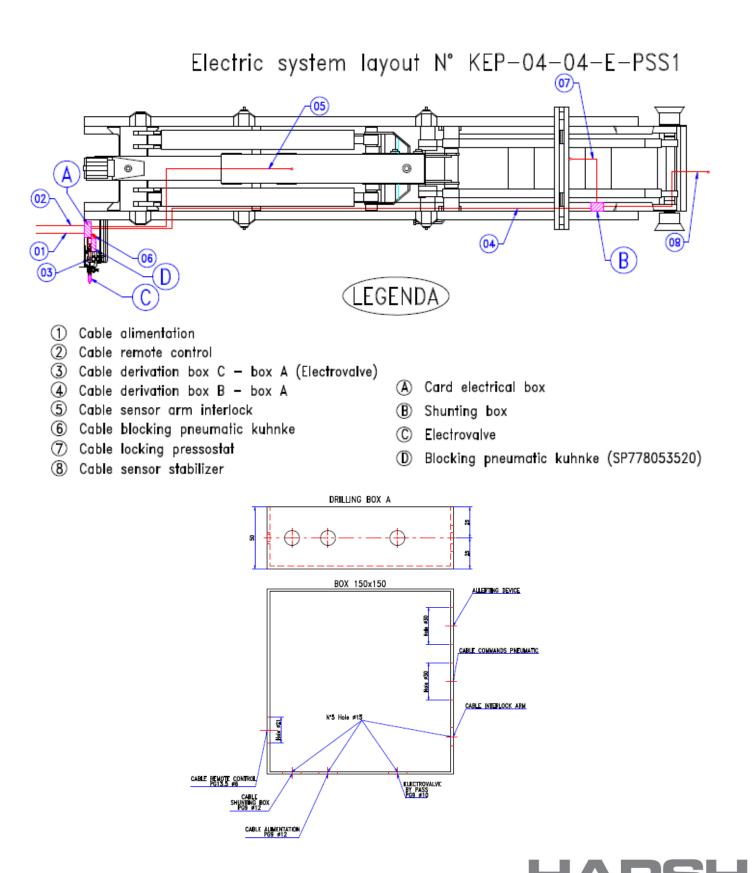
### Interlock







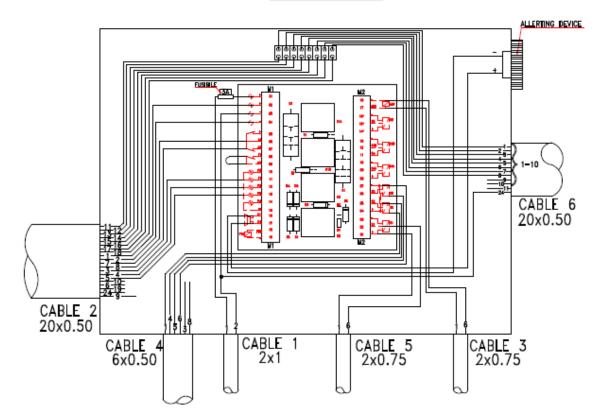
### **Standard Electropneumatic Installation**







BOX A



	CABL	2 20x0.50
FILO	COLORE	DESCRIZIONE
1	MRRONE	POSITIVE
2	BLUE	NEGATIVE
11	GRAY-PINK	SIGNAL
12	GRAY-MARRON	SIGNAL
13	GREEN-MARRON	SIGNAL
14	RED-BLUE	SIGNAL
15	YELLOW-MARRON	SIGNAL
16	WHITE-GRAY	SIGNAL
17	WHITE-GREEN	SIGNAL
18	WHITE-YELLOW	SIGNAL
3	GREEN	SIGNAL ARM
4	PINK	SIGNAL LOCKING
5	GRAY	SIGNAL STABILIZER
8	YELLOW	STOP
7	VIOLET	START
9	BLACK	
10	RED	
6	WHITE	
19	WHITE-BLUE	
24	PINK-MARRON	

		CABLE 06						
WIRE	COLOUR	DESCRIPTION						
1	BLACK	SIGNAL MOVIMENT						
2	BLACK	SIGNAL MOVIMENT						
3	BLACK	SIGNAL MOVIMENT						
4	BLACK	SIGNAL MOVIMENT						
5	BLACK	SIGNAL MOVIMENT						
6	BLACK	SIGNAL MOVIMENT						
7	BLACK	SIGNAL MOVIMENT						
8	BLACK	SIGNAL MOVIMENT						
9	BLACK							
10	BLACK							
24	YELLOW-GREEN	NEGATIVE						

С	ABLE 4 6x0.	50 (SHUNTING BOX)	
FILO	COLORE	DESCRIZIONE	
1	MARRON	POSITIVE	
6	WHITE	NEGATIVE	
4	PINK	SIGNAL LOCKING	
3	GREEN		
5	GRAY	SIGNAL STAB.	
8	YELLOW		

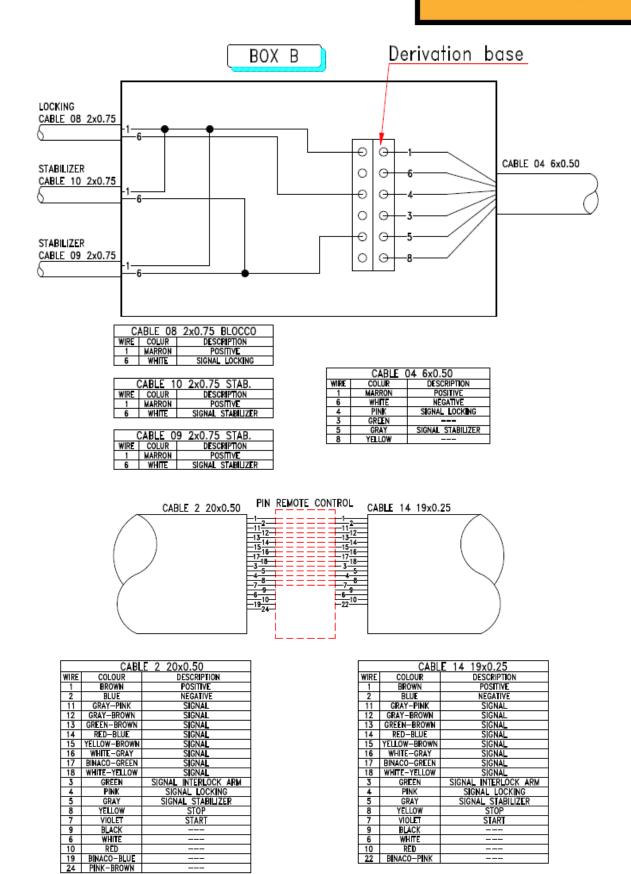
	CABLE 1	2x1 (ALIMENTATION)	
FILO	COLORE	DESCRIZIONE	
1	MARRON	POSITIVE FOR KEY +15	
2	BLUE	NEGATIVE	

	CABLE 5 2	2x0.75 (DOUBLE SPEED)		
FLO	COLORE	DESCRIZIONE		
1	MARRON	POSITIVE		
6	WHITE	NEGATIVE		

	CABLE 3	2x0.75	(ELECTROVALVE)		
FILO	COLORE		DESCRIZIONE		
1	MARRON		POSITIVE		
6	WHITE	NEGATIVE			



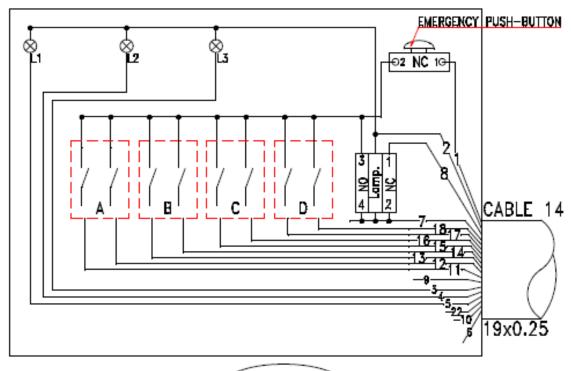








### REMOTE CONTROL 4ELEMENT





- A HOISTING
- B LOCKING
- C SUSPENSION STABILIZER
- D SLIDING ARM

Led1: Suspansion stabilizar display Led2: Locking display Led3: Interlock arm display

	CABLE 14 19x0.25				
WIRE	COLOUR	DESCRIPTION			
1	BROWN	POSITIVE			
2	BLUE	NEGATIVE			
11	GRAY-PINK	SIGNAL			
12	GRAY-BROWN	SIGNAL			
13	GREEN-BROWN	SIGNAL			
14	RED-BLUE	SIGNAL			
15	YELLOW-BROWN	SIGNAL			
16	WHITE-GRAY	SIGNAL			
17	BINACO-GREEN	SIGNAL			
18	WHITE-YELLOW	SIGNAL			
3	GREEN	SIGNAL INTERLOCK ARM			
4	PINK	SIGNAL LOCKING			
5	GRAY	SIGNAL STABILIZER			
8	YELLOW	STOP			
7	VIOLET	START			
9	BLACK				
6	WHITE				
10	RED				
22	BINACO-PINK				

### 10.4 Maintenance Reporting





Fill in the report charts to record your routine maintenance check dates. Reference the checks carried out and any comments/issues found or rectified in the following reports. Ensure it is signed and verified by your line manager or another trained professional engineer.

MAINTENANCE REPORT		
CUSTOMER	DATE	
VEHICLE F	REGISTRATION NO	
VEHICLE LOCATION		
EQUIPMENT		
HOOKLIFT MODEL	SERIAL NO	
JOB NO		
COMMENTS		
Hooklift Control Sequences Checks Electric circuit and monitoring control sequence ch	ecks.	
Sliding arm proximity check [ ] Comments		
Hydraulic locking proximity check [] Comments _		

Stabilizing Roller proximity check [ ] Comments \_\_\_\_\_

Front hydraulic locking ADR [ ] Comments \_\_\_\_\_

### PTO & Pump Visual Checks

Oil Leaking Check [ ] Comments \_\_\_\_\_

Condition of the Equipment Visual Check [] Comments \_\_\_\_\_





High Pressure Pump Output [] Comments				
Oil Tank Suction Hose [ ] Comments				
Oil Tank & Filter Cartridge [ ] Comments				
Oil Level Gauge [ ] Comments				
Gate Valve [ ] Comments				
Three Way Oil Switch [ ] Comments				
Hydraulic Circuit Checks				
Steel Pipes and Flex Hoses to   • Hoisiting Cylinders [] Comments				
Structural Control Checks				
Hooklift Hook [ ] Comments				
Bolts & Nuts Fastening [ ] Comments				
Telescopic Arm [ ] Comments				
Centre Body [ ] Comments				
Half Moon Rotation Centre [] Comments				
Rear Frame [ ] Comments				
Hydraulic Locking [ ] Comments				
Rear Stabilizer Roller (optional) [ ] Comments				
Rear Headstock [ ] Comments				
Fixation Plates [] Comments				
Bolts & Nuts Fastening [ ] Comments				





Oil Tank Supports [ ] Comments						
Dil Tank & Filter [ ] Comments						
container Guide [ ] Comments						
ADDITIONAL COMMENTS	DDITIONAL COMMENTS					
DATE	SIGNATURE					





### **Routine Maintenance Record**

DATE	ROUTINE MAINTENANCE CHECK	TECHNICIAN	MANAGER





HITS (Improved Tuck Support)

## HITS



service





### Introduction

Harsh Ltd prides itself on being an industry leader in the products and the services we offer. We aim to provide products that give the operator added value in payback and profit generation. This core belief is at the very heart of Harsh from its foundation with the World's first stabilised Tipping Gear back in 1987. This unique product concept and design revolutionised the industry and changed the way in which the tipping sector treated safety. From that day forward Harsh has continued from its Yorkshire roots to improve and support the commercial vehicle sector by sourcing and designing industry leading products.

The introduction of the Sheeting System Division in 1996 saw the UK's first ever automated tarpaulin covers fitted on UK road going vehicles. The demount handling equipment introduced in 1999 saw Harsh design in house its own Skip and Hookloaders. Not satisfied with simply importing readymade continental versions, Harsh set about designing our very own demount bodies. With all the benefits needed to operate effectively in the UK. Working with manufacturing partners with a vast amount of experience we tailored the demount designs to UK specifications. This saw the launch of the Harsh T Range of Skiploaders and the Harsh Hooklift models.

This recipe of providing products with added value has underpinned the continued growth of Harsh from a small family company into a worldwide recognised brand in vehicle hydraulics and ancillary equipment. We currently export our products all over the world with notable joint ventures in New Zealand, Australia and South Africa.

It is however our expertise and knowledge of the UK market which has seen us recently launch our new HITS programme; focusing our attention on a more service led business support unit. HITS has grown from its initial inception in providing one large nationwide operator with a tailored service package, into a service package offered with all our products as standard.

### What is HITS?

HITS stands for Harsh Improved Truck Support and is a tailor made service led package that helps support working trucks to ensure minimum repair and maintenance costs and ultimately reduce vehicle downtime.

### How does HITS work?

Every one of our products is sold with a full Harsh warranty as per our standard terms and conditions of sale. HITS in its basic format is our way of extending full product service support beyond the initial sale. Whether in terms of a quick service response, warranty, parts on the shelf or friendly technical advice HITS has it covered. Simply telephone Harsh on 01759 372100 or Peter Arthur our Service Manager on 07984 412 717 – Available 24/7 HITS will have your queries dealt with quickly and efficiently.

We also go beyond the industry norm and carry out full inspections and reports on everyone one of our Service Jobs to enable you the customer to learn exactly what has happened with your vehicle. This also enables us to build a portfolio on each of your individual trucks, compare data and suggest areas for preventative maintenance checks. Working in a Service partnership with our customers really does provide added value on our products.





### How does HITS offer nationwide support?

We have 2 fully stocked Service Vans based at our Full Sutton, York HQ available at a moment's notice to travel anywhere in the UK. Fully stocked with mobile equipment to carry out onsite repairs our service engineers are trained to get you moving again as fast as possible.

Requiring a faster response, we also have 1 small minivan for an even quicker service; often available as a gesture for courtesy hire if your truck requires back to factory support. This takes the logistical nightmare of a breakdown out of your hands immediately, whilst we deal with your repair quickly and efficiently.

We also have our very own Harsh tractor unit, which enables us to collect and deliver trailers. A further example of our investment in HITS and the importance we place on our Service Support.

### Do you have a Service Engineer in my local Area?

Yes. We have a complete nationwide network of Dealers / Service engineers all fully trained and most complete with a range of stocked parts to keep you moving. Please see our Dealer List attached to this document for further details on your nearest engineer.

Ring Harsh on 01759 372100 or Phil Bovingdon our Service Manager on 07984 412789 and we will arrange for your nearest agent to be ready awaiting your arrival.

### Do you have Parts off the Shelf?

HITS offers a complete range of spare parts available off the selfnext day to anywhere in the UK. With over 35,000 vehicles equipped with Harsh equipment we send out on average 15 spare part items per day across our product ranges to help support Harsh products in the field. Using a guaranteed before Noon carrier we aim to have your parts packed and packaged inside an hour of your order. Delivered to you the next working day or Saturday AM if required.

Telephone our Spares Department on 01759 372100 for friendly helpful advice with product documentation and schematics to aid identification.









### Do you offer Extended Terms or R&M Packages?

HITS can be if required further encompassing and include extended warranty options, full periodic service reports and onsite maintenance checks as well as fully stocked onsite parts outlets. For further details on these possibilities please speak with your Harsh representative to tailor design a package to suit your needs.

For example, we have numerous HITS packages which currently involve periodic fleet inspections using a traffic light reporting system for tippers or routine maintenance schedules for waste handling equipment. These reports are then fed back to you the customer and a programme is then agreed to ensure any potential VOR are dealt with prior to it occurring.

A preventative maintenance system that has dramatically reduced downtime and repair costs for numerous customers.

HITS has also been extended recently to cover other manufacturers products where possible to help with one easy point of contact.



### **Industry Accreditations**

Harsh Ltd are ISO9001:2008 compliant credited by the British Standard Institute. Meaning we have full audited systems which give us full traceability and processes in place to ensure full support.

We are active members of the UK CHEM (Container Handling Equipment Manufacturers) committee set up to lobby government with regards to the best practises for the UK waste handling industry.

Harsh are also currently working towards ECWVTA (European Community Whole Vehicle Type Approval) legislation coming into play in October 2014.

### After Sales Service & Customer Care – How do we compare?

In an independent survey, Harsh came out top on after sales service and customer care for the hydraulic industry in the UK. With note to our special attention to detail and our personal approach to customers. We are proud of this achievement and endeavour to provide honest, quick and simple answers to any of your questions or needs.





### **Service Contact Details**

Service Manager – Peter Arthur Harsh Ltd T. 01759 372 100 M. 07984 412 717 E. <u>peter.arthur@harshuk.com</u>

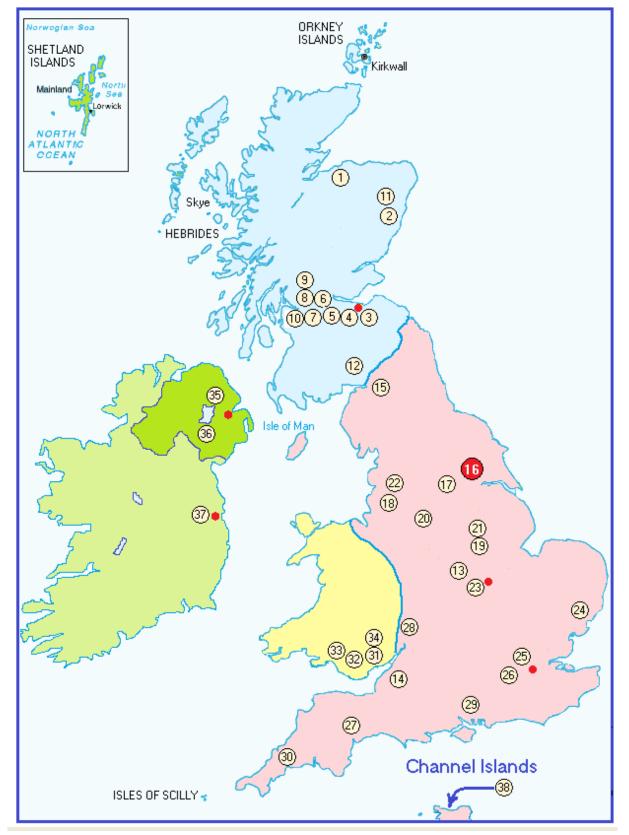
Aftersales Administration – Sharon Lazenby Harsh Ltd T. 1759 372100 E. <u>Sharon.lazenby@harshuk.com</u> Spare Parts Department Harsh Ltd T. 01759 372100 E. <u>harsh@harshuk.com</u>

Workshop Manager – Phil Bovingdon Harsh Ltd T. 01759 372100 Mo. 07984 412 879 E. phil.bovingdon@harshuk.com





#### **UK Dealer Network**









Ref	Company	Location	Contact	Tel	Email
1	James Munro Engineering	Forres	James Munro	01309 672681	finoamunro641@btinter net.com
2	Gordon Nicol	Stonehaven	Gordon Nicol	07976 829874	gordienicol@live.com
3	Bulkweld Limited	Broxburn	Eddy Mollon	01506 811 453	eddy@bulkweld.com
4	Alex Inglis Scotland Ltd	Bellshill	David Smith	01698 823 213	David@alexinglis.co.uk
5	Outreach Ltd	Falkirk	Colin Mansen	01324 889000	cmansen@outreachltd.c om
6	P M H Coachbuilders Ltd	Bonnybridge	Peter Hogan	01324 841702	pmhcoach@aol.com
7	Central Commercial Services	Bothwell	Barry Sweeney	07854 782 891	centralcommercialservic es@hotmail.co.uk
8	DJS Engineering Ltd	Glasgow	Darren Johnson	07971 055278	djsscotland@me.com
9	J M Services	East Kilbride	Jim Mills	07786 710075	jm.services@live.co.uk
10	Thistle Hydraulics Ltd	Denny	Geoff Howells	01324 821 300	sales@thistlehydraulics. co.uk
11	W J Rattray	Inverurie	Bill Rattery	01467 631 345	wjrattray@hotmail.com
12	Carlton Engineering	Moffat	John Carlton	01683 220582	www.carlton- engineering.com







### ENGLAND

Ref	Company	Location	Contact	Tel	Email
13	Chassis Development Services Ltd	Walsall	George Creegan	01922 410 990	george@chassisdevelo pmentservices.co.uk
14	GJC Commercials Ltd	Bristol	Richard	01179 644 411	info@gjccommercials.co m
15	S J & K Holliday	Carlisle	Steve Holliday	01228 672 060	
16	Harsh Ltd	York	Peter Arthur	07984 412 717	Peter.arthur@harshuk.c om
17	MTMS Ltd	Leeds	Matthew Tate	07714 274 129	
18	Hydraulic Spares Centre	Bolton	Michael Booth	01204 527 594	hydraulicsparescentre@ live.com
19	Muldoon Transport Systems Ltd	Swadlincote	Richard Jones	012835 22 956	richardjones@muldoon. com
20	Nixon Vehicle Inspection	Congleton	Mark Nixon	07525 900 979	
21	Swadlincote Aluminium Company Ltd	Swadlincote	Rob Winfield	01283 223 323	
22	Thompson Spares & Service Ltd	Blackburn	Nathan Ewins	07765 863 379	nathanewins@thompsonsuk.com
23	Truckweld	Wisbech	Trevor Howlett	07957 165 337	info@truckweld.co.uk
24	Tip N Lift	Ipswich	Paul Cox	01473 747 222	paul@tipnlift.co.uk
25	KEL Services	Pinner	Paul Kelly	07769 723 045	
26	S&S Hydraulics	Staines	Stacy Burgoyne	07779 235 038	info@sandshydraulics.c o.uk
27	Wains Transport	Cullompton	Bruce	01884 266 300	wainstransport@yahoo. co.uk
28	Fleetcare Services Vehicle Engineers Ltd	Ross on Wye	Rob Waters	01989 565 777	
29	H P Hydraulics	Fareham	Nigel Howes	01329 822 277	
30	Highway Commercials	St Austell	Viv Retallick	01726 682 70	highwaycommercialsup plies@hotmail.com







Wales

Ref	Company	Location	Contact	Tel	Email
31	KCS Transport Ltd	Barry	Ken Sievewright	01446	
51	NCS Transport Eld	Dany	Ken Sievewiight	751 423	
32	Neath Coachbuilders	Neath	Paul Oakley	01639	paul.oakley@neathcoac
52	Neath Coachbuilders	nealli	r aul Oakley	643 629	hbuilders.co.uk
33	Neath Coachbuilders	Swansea	Chris James	01792	Chris.james@neathcoac
33	Neath Coachbuilders	Swallsea	Chills Jailles	781 660	hbuilders.co.uk
34	Tanner Electrics	Cardiff	Paul / Lee	02920	
34		Caluin	raui / Lee	727 190	



### Northern Ireland

Ref	Company	Location	Contact	Tel	Email
35	McErlean Trailers	Toomebridge	Martin McErlean	02879	mcerleantrailers@hotma
00				659 959	<u>il.co.uk</u>
36	Muldoon Transport Systems Ltd	Dungannon	Justin Muldoon	07867 500 089	Justin@muldoon.com



### **Republic of Ireland**

[	Ref	Company	Location	Contact	Tel	Email
	37	Kieran Trehy Hydraulics	Dublin	Kieran Trehy	003531 8 644 915	



### **Channel Islands**

Ref	Company	Location	Contact	Tel	Email
38	Rabeys Garage Ltd	Guernsey	Paul Bourgaise	01481 244 551	paul.bourgaise@rabeys. com



