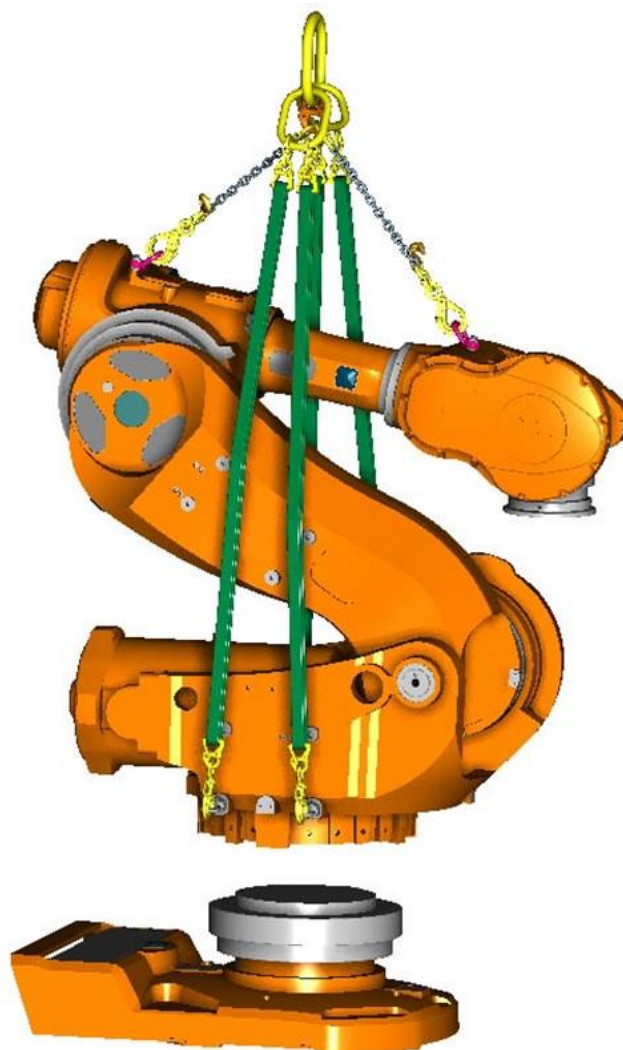


Prevas

User manual

Lifting accessory 3HAC15607-1



Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
Prevas		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 1/26

TABLE OF CONTENTS

GENERAL INFORMATION.....	3
SAFETY INFORMATION	5
USAGE	6
MAINTENANCE / SPARE PARTS.....	24
DISMANTLING/RECYCLING	24
REVISION HISTORY	25
EC DECLARATION OF CONFORMITY.....	26

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr		Rev: K	Pages 2/26

GENERAL INFORMATION

User manual

This "**original user manual**" is Your direct guide to the correct use and maintenance of the lifting accessory. The users manual **shall** be carefully read and completely understood by the operator before using the lifting accessory.

The user manual shall always be available to those carrying out maintenance and those using the lifting accessory on a daily basis.

In addition, it is important that you:

- Keep this user manual and other applicable documents for the entire life of the lifting accessory.
- Forward all documentation related to this lifting accessory to other owners or users of the lifting accessory.
- Attach any supplementary documents or modifications issued by the manufacturer to the user manual.

Strictly observe information mentioned in the user manual and that found on the lifting accessory. Serious personal injury and damage to the equipment may occur if you fail to observe this information.

Responsability

This user manual describes the authorized method of using the the lifting accessory.

All services shall be performed by personel with technical training or equivalent professional experience as well as in consultation with the manufacturer.

The manufacturer will not be held liable for personal injury or damage to equipment if the instructions are not followed.

Marking

The lifting accessory is marked with CE mark according to Swedish law SFS 1992:1534, which means that it is designed, manufactured, and described in accordance with EU's machine directive 2006/42/EG.



Figure 1. CE mark

Manufacturer

Prevas Industrial Innovation AB
Glödgaränd 14
SE-721 30 Västerås
Sweden

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2	
		Document No. P1839 Instr	Rev: K Pages 3/26

Modifications

If the lifting accessory is modified or supplemented with other products without consent of the manufacturer, the CE marking does not apply for these. If such modifications or products modify the original function of the lifting accessory, the CE marking in its entirety is invalid.

Intended usage

The lifting accessory is intended for lifting:

- Complete IRB 660, 6600, 6620, 6640, 6650, 6650S, 6660, 6700, 760, 7600, 5710, 5720, 6710, 6720, 6730 and 6740.
- Arm system (manipulator without foot) of IRB 6600 and 7600

All other use is prohibited.

Technical data/Identification

Max load:	3500 kg
Drawing No.:	3HAC15607-1
Weight	10 kg
Static test coefficient:	1,5

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2	
		Document No. P1839 Instr	Rev: K Pages 4/26

SAFETY INFORMATION

General

Due to the unfavorable position of the center of gravity, the two chains A and B must always be used when lifting all models of the IRB 6600, 6200, 6640, 6650, 6650S, 6660, 6700 and 7600 respectively. On IRB 660 and 760 a lifting sling must be used, this sling is guided through the upper arm and is secured with the chain sections to prevent unintentional rotation. On IRB5710 and 5720 two slings must be used, these are guided through the upper arm and round the arm housing and secured with the two chains to ensure safe lifting and prevents unintentional rotation.

When lifting the IRB 6600, 6620, 6640, 6650, 6650S, 6660, 6700, 7600, 5710 or 5720, the chains A and B are used to prevent the load rotating and not for lifting purposes. Use C and D to adapt the length of the chain to fit the robot's arm.

For safety reasons, the conditions specified in the section called "Preparatory measures" must be complied within connection with lifting.

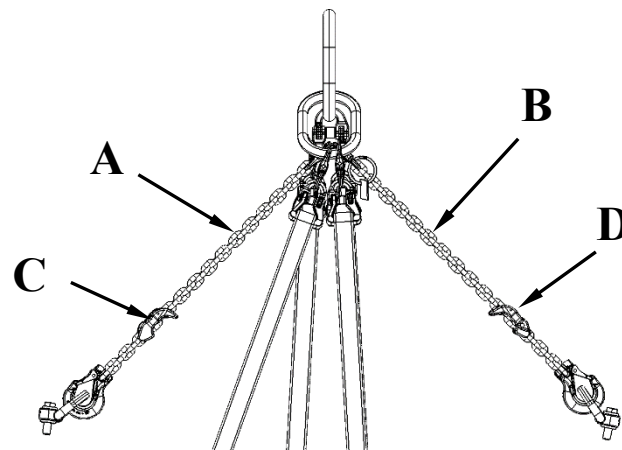


Figure 2. Chain sections

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual		
Prevas		Description - Technical Provisions			
		User manual for 3HAC15607-1			
		ABB user manual 3HAC15971-2			
Document No.		Rev:		Pages	
P1839 Instr		K		5/26	

USAGE

Conditions and preparatory measures

A lifting accessory with damaged parts must not be used.

The intended hoist must have sufficient lifting capacity and the lifting hook must be equipped with a locking accessory.

The CE mark on the lifting accessory are to be clearly visible. If any component parts that have a CE-mark attached are replaced, then new CE-mark must be affixed in the equivalent position. Damaged CE-mark are to be replaced immediately.

Pay particular attention to the spacers on the swiveling M16 lifting eyes, these must be screwed on fully, see figure 3-4.



Figure 3. Spacer in *WRONG* position.



Figure 4. Spacer in *CORRECT* position



WARNING!

For reasons of safety the spacers must always be screwed on fully.

Inspection

Control the following points before each lifting operation, after the assembly and after any incident.

- Visual control of the lifting accessory.
- Verify that no components are missing.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K
			Pages 6/26

Preparatory measures – IRB 6600, 6640, 6650 and IRB 7600

Before the lifting accessory is secured the following requirements must be met:

- All tools, except for the Robotics tool changer, should be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The robot's upper arm should be positioned so that its incline and height measurement, as set out in figures 5 to 6, are met. Accordingly, the upper arm should be directed downwards or horizontal.

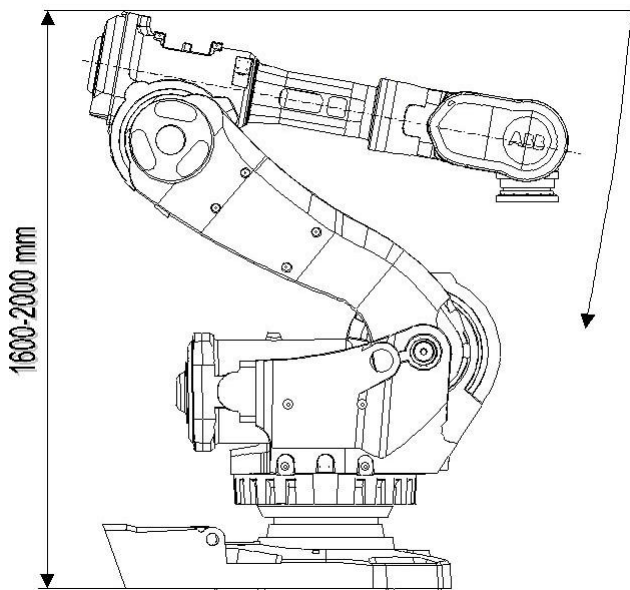


Figure 5. Approved lifting position - IRB 6600, 6640 & 6650.

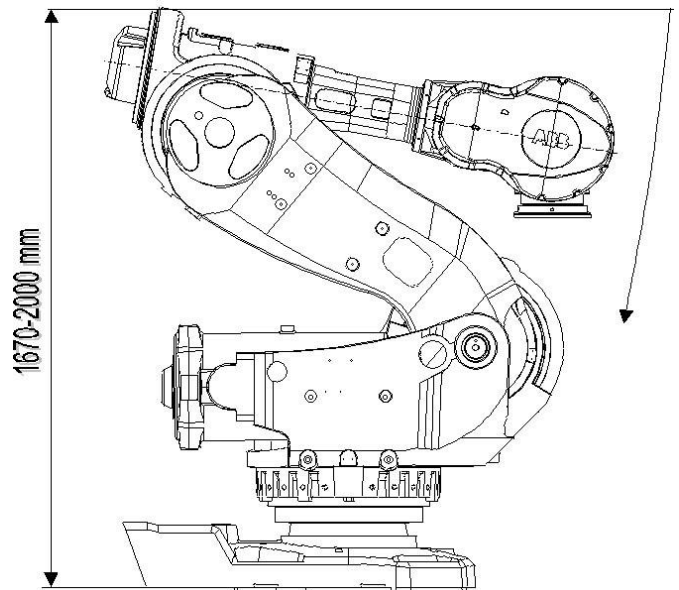


Figure 6. Approved lifting position - IRB 7600.

Lifting the IRB6640 requires that the user has:

- 4 lifting eyes M20.

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 7/26

Preparatory measures – IRB 6700, 6710, 6720, 6730 and 6740

Before the lifting accessory is secured the following demands must be satisfied:

- All tools, except for the Robotics tool changer, should be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The robot's arm system should be in the position shown in figure 7.

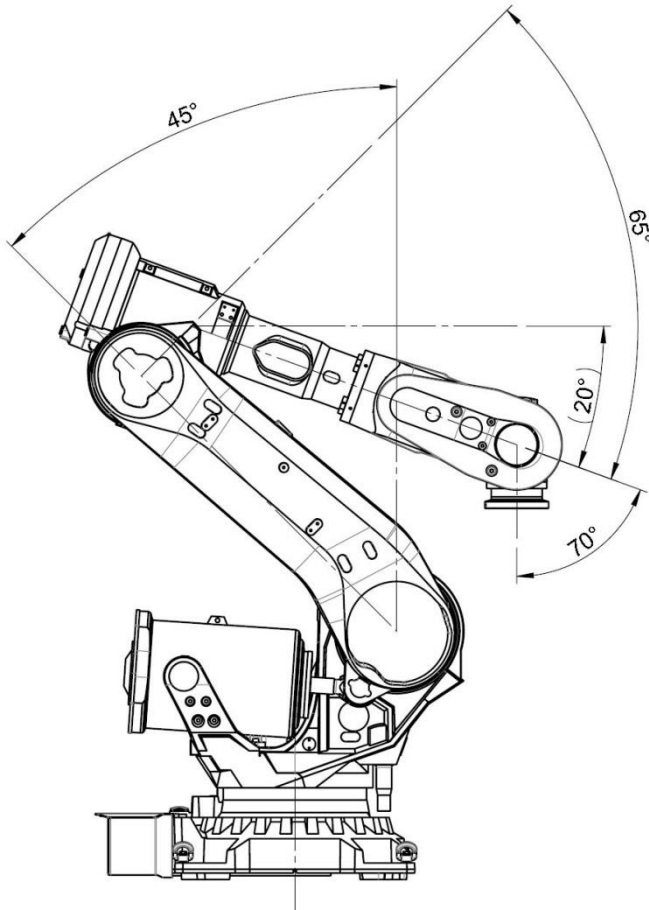


Figure 7. Approved Lifting position - IRB 6700.

Lifting the IRB6700 requires that the user has:

- 4 lifting eyes M20.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual		
Prevas		Description - Technical Provisions			
		User manual for 3HAC15607-1			
		ABB user manual 3HAC15971-2			
Document No.		Rev:		Pages	
P1839 Instr		K		8/26	

Preparatory measures – IRB 6650S

Before the lifting accessory is secured the following demands must be satisfied:

- All tools, except for the Robotics tool changer, should be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The upper and lower arms of the robot must be positioned as shown in figure 8. The lower arm must thus be pointing backwards as far as possible and the upper arm must be angled downwards or horizontal.

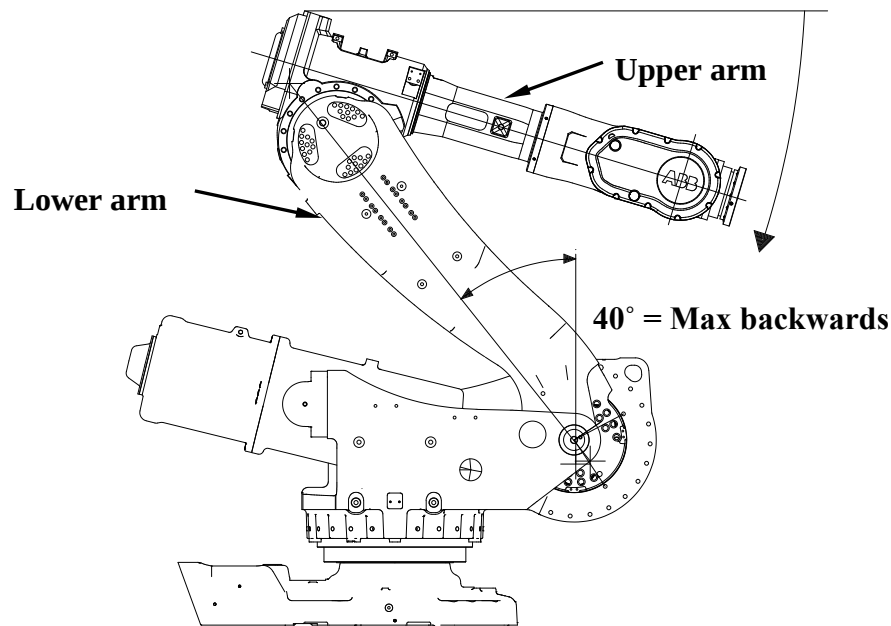


Figure 8. Approved lift position - IRB 6650S

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual		
		Description - Technical Provisions			
		User manual for 3HAC15607-1			
		ABB user manual 3HAC15971-2			
		Document No. P1839 Instr	Rev: K	Pages 9/26	

Preparatory measures – IRB 6620, 5710 and 5720

Before the lifting accessory is secured the following demands must be satisfied:

- All tools, except for the Robotics tool changer, should be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The robot's upper and lower arms must be positioned as shown in figure 9. Accordingly, the under arm must be directed approximately 45 degrees backwards and the upper arm must be horizontal or somewhat downwards.

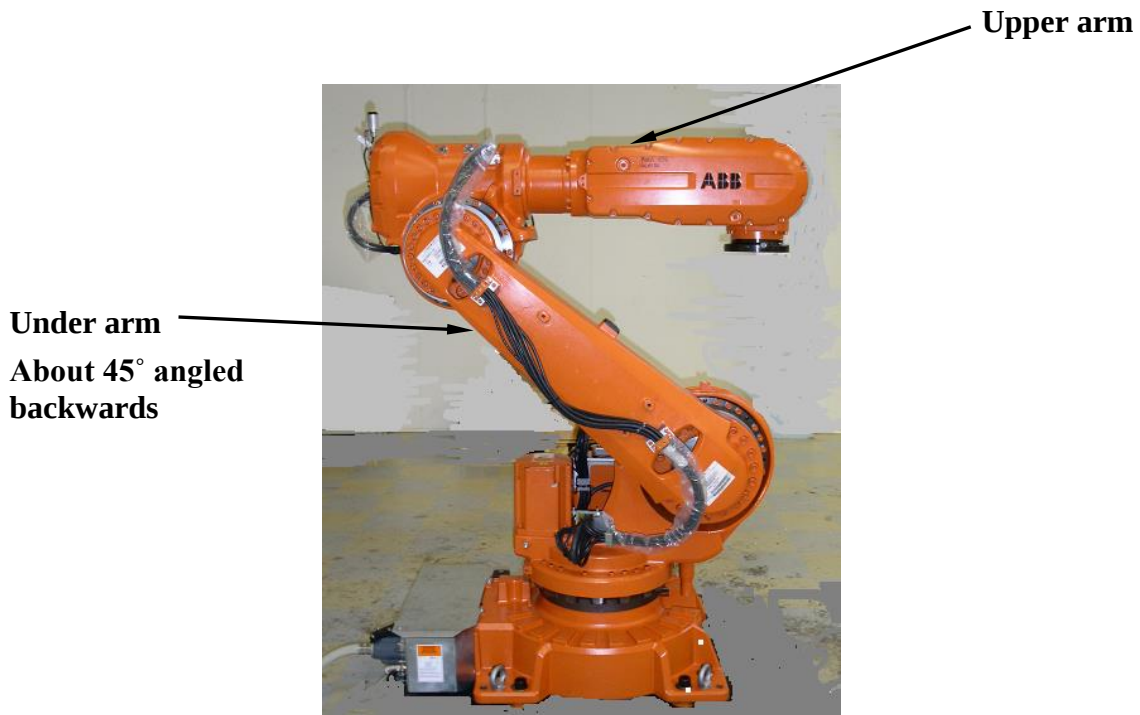


Figure 9. Approved Lift position - IRB 6620, 5710 and 5720

Lifting the IRB6620, 5710 and 5720 requires that 4 lifting eyes M20is used.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
Prevas		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 10/26

Preparatory measures – IRB 6660

Before the lifting accessory is secured the following demands must be satisfied:

All tools, except for the Robotics tool changer, should be dismantled from the robot's faceplate.

The upper arm may only be loaded with extra equipment as set out in the product specification.

The robot's upper and lower arms must be positioned as shown in figure 10. Accordingly, the lower arm shall be directed fully backwards and the upper directed diagonally downwards or horizontally.

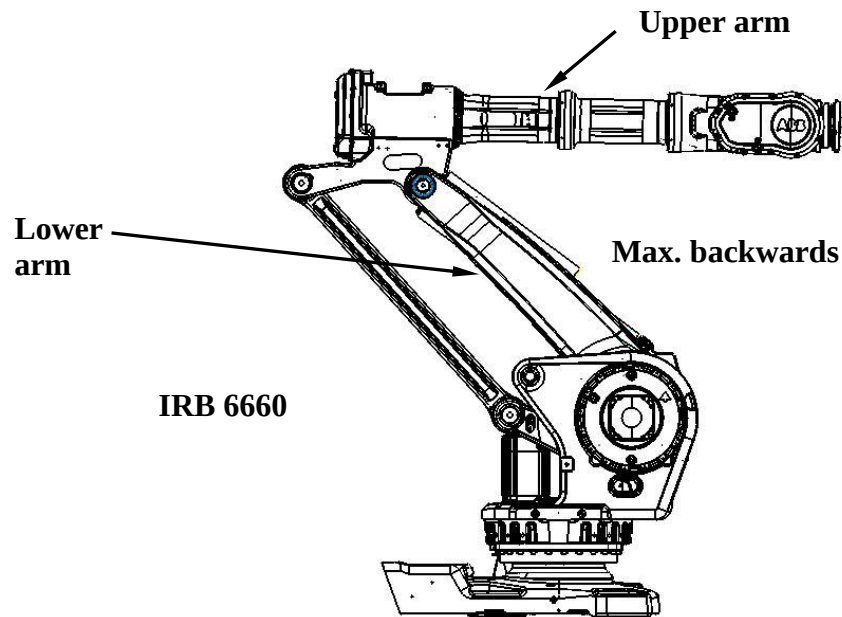


Figure 10. Approved lift position - IRB 6660

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr		Rev: K	Pages 11/26

Prevas

Preparatory measures – IRB 660

Before the lifting accessory is secured the following demands must be satisfied:

- All tools must be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The robot's upper and lower arms are to be positioned as shown in figure 11-12. The upper stay may be horizontal (as the shown in the top picture) or point downwards towards the tilt housing (as shown in the lower picture). Accordingly. the lower arm can be directed back approximately 45 degrees and the upper arm directed diagonally down.

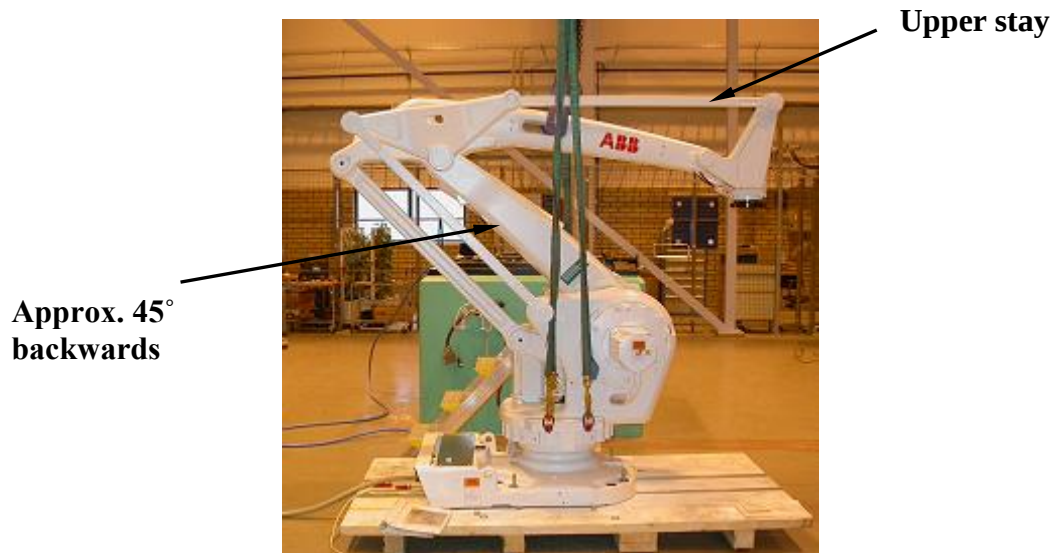


Figure 11. Approved lift position -IRB 660



Figure 12. Approved lift position - IRB 660

Preparatory measures – IRB 760

Before the lifting accessory is secured the following demands must be satisfied:

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr		Rev: K	Pages 12/26

- All tools must be dismantled from the robot's faceplate.
- The upper arm may only be loaded with extra equipment as set out in the product specification.
- The robot's upper and lower arms are to be positioned as shown in figure 13-14. Accordingly, the lower arm shall be directed back 42 degrees from the vertical plane and the upper arm directed 28 degrees downwards from the horizontal plane.



Figure 13. Approved lift position -IRB 760

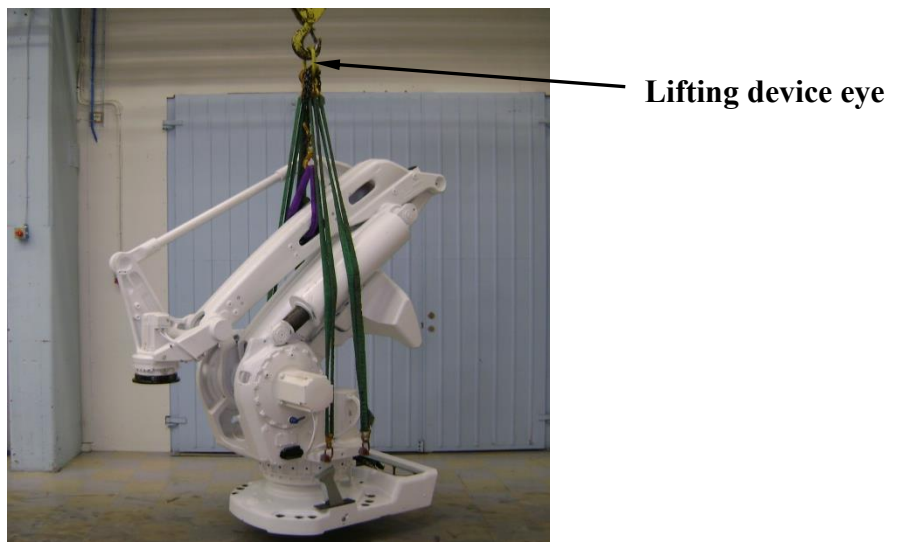


Figure 14. Approved lift position - IRB 760

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr		Rev: K	Pages 13/26

Usage – lifting complete IRB 6600, 6640, 6650, 6650S, 6660, 6700, 7600, 6710, 6720, 6730 and 6740

1. Hook on the lifting accessory's eye (E).
Ensure the lifting hook's safety latch is locked.
2. Fit the swiveling lifting eyes (M16) (T) into the lower holes on the stand intended for fork lift truck brackets. For IRB6620, IRB6640 and IRB6700 4 lifting eyes (AJ) are fitted in the robot base, see figure 23. Tighten the lifting eyes (T) hard against the surface, ensure that good contact is made.
3. The hooks (S) are fitted in the lifting eyes (T), the safety latch must be locked. Make sure that the four round lifting slings (4) are not twisted.
4. When lifting IRB 6600, 6640, 6650, 6650S, 6660 or 6700 the lifting eye (H) should be fitted in one of the threaded holes (N) located in the flange between wrist housing (K) and the upper arm (L), if the hole/s (N) is directed upwards or diagonally upward. Otherwise a 1 ton lifting strap should be used, see figure 16. When lifting IRB 7600 the lifting eye (H) should be fitted in the threaded hole (if one is featured) in the wrist housing (K), if this is oriented as set out in figure 6. If the wrist housing (K) is rotated 180 degrees, compared to that shown in figure 6, the lifting eye (H) can be fitted in any of the faceplate (P) holes. If the wrist housing (K) is orientated in any other way (rotated +/- 90 degrees) or there is no threaded hole, a 1 ton lifting straps should be used instead, see figure 7. The lifting eye (H) is to be tightened hard against the surface, ensure that good contact is made. Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
5. Fit the hook (F) in the lifting eye (H), or the lifting strap as set out in figure 16. Ensure the lifting hook's safety latch is locked.

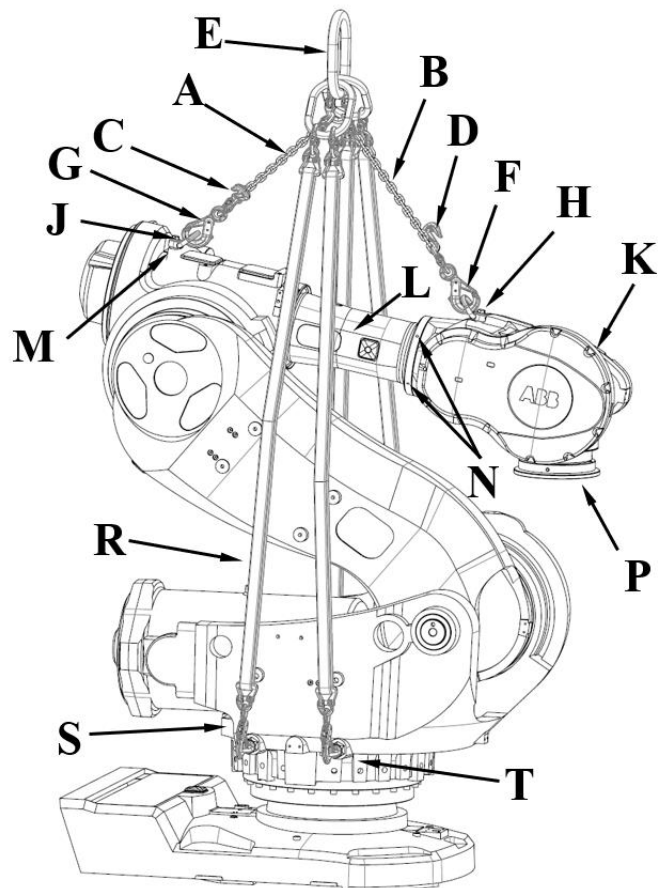


Figure 15. Lift of IRB 6600, 6640, 6650, 6660, 6700 and 7600 complete



Figure 16. Lifting using a lifting strap.

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
 Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K
			Pages 14/26



WARNING!

For reasons of safety the chain sections (A and B) as well the lifting eyes (H and J) must always be used.

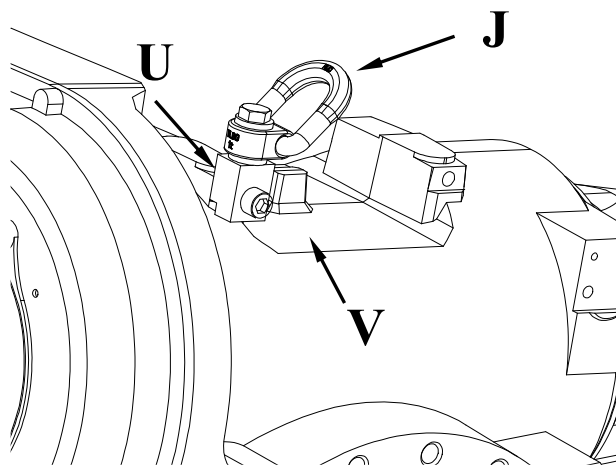


Figure 17. Lift of IRB 6600, 6640, 6650, 6650S & 6700.

6. When lifting IRB 6600 6640, 6650, 6650S or 6700 the lifting stud (U) should be used. Assemble the lifting stud (U) by fitting a bolt (M12x50 8.8) (V) in one of the existing holes in the upper arm housing (M). The bolt (V) is tightened so that good contact is made. A hexagonal, open ended or U-ring spanner should be used depending on the type of bolt head.
7. When lifting IRB 6600, 6640, 6650, 6650S or 6700 the lifting eye (J) should be fitted in the lifting stud's (U) threaded hole. When lifting IRB 7600 the lifting eye (J) should be fitted in one of the existing threaded holes in the upper arm housing (M). The lifting eye (J) is to be tightened hard against the surface, ensure that good contact is made. Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
8. Fit the lifting hook (G) in the lifting eye (J). Ensure the lifting hook's safety latch is locked.
9. In some cases the robot can be equipped with an external cable harness that is attached to the under and/or upper arm. It is then extremely important that the lifting accessory's four slings (R) run freely between the cable harness and the under and upper arms. The cabling may need to be removed.
10. Lift carefully and stop when the load starts to move. Note which of the chain sections (A or B) that needs to be extended so that the load becomes balanced, i.e. moves horizontally.
11. Lower the load and extend the chain section (A or B) by moving its shortening hook (C and/or D) to a suitable chain link. It may be necessary to repeat this procedure several times to attain the correct lifting position.
12. Lift carefully and make sure that other parts such as the hooks, round slings and the like move to the correct lifting positions. Ensure that the lifting accessory does not rub against sharp edges, etcetera. Lower the load and adjust if necessary. The load should always be moved at a low speed.
13. Carefully lower the load and make sure that it is well supported/anchored.
14. Unhook the lifting hook (G).
15. Release the lifting eye (J). Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
16. Release, where appropriate, (IRB 6600, 6640, 6650, 6650S, 6660, 6700) the lifting stud (U) by unscrewing the bolt (V). A hexagonal, open ended or U-ring spanner should be used depending on the type of bolt head.
17. Unhook the lifting hook (F).
18. Release the lifting eye (H) (or where appropriate the lifting strap as set out in figure

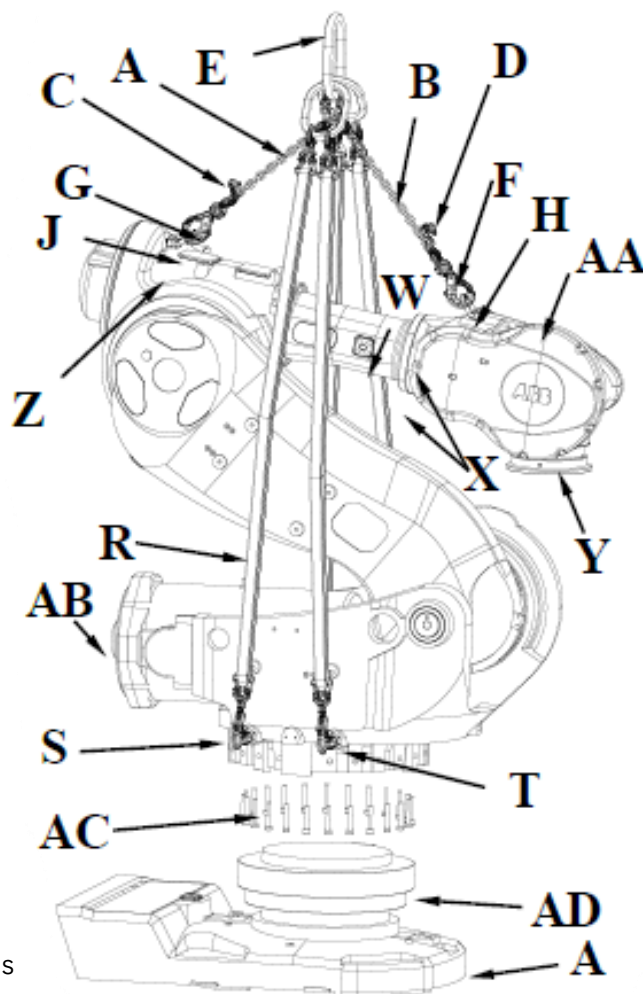
Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K
			Pages 15/26

- 16). Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
19. Release the lifting accessory by unhooking the hooks (S) and removing the swivelling lifting eyes (T).
20. Unhook the lifting accessory.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 16/26

Usage - lifting of the arm system of IRB 6600 and 7600

1. Hook on the lifting accessory's eye (E). Ensure the lifting hook's safety latch is locked.
2. Fit the swiveling lifting eyes (M16) (T) into the lower holes on the stand intended for forklift truck brackets. Tighten the lifting eyes (T) hard against the surface, ensure that good contact is obtained.
3. The hooks (S) are fitted in the lifting eyes (T), the safety latch must be locked. Make sure that the four round lifting slings (R) are not twisted.
4. When lifting IRB 6600 the lifting eye (H) should be fitted in one of the threaded holes (X) located in the flange between wrist housing (AA) and the upper arm (W), if the hole/s (X) are directed upwards or diagonally upward. Otherwise a 1 tonne lifting strap should be used, see figure 19. When lifting IRB 7600 the lifting eye (H) should be fitted in the threaded hole (if one is featured) in the wrist housing (AA), if this is oriented as set out in figure 18. If the wrist housing (AA) is rotated 180 degrees, compared to that shown in figure 18, the lifting eye (H) can be fitted in any of the faceplate (Y) holes. If the wrist housing (AA) is orientated in any other way (rotated +/- 90 degrees) or there is no threaded hole, a 1 tonne lifting straps should be used instead, see figure 19. The lifting eye (H) is to be tightened hard against the surface, ensure that good contact is obtained. Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
5. Fit the hook (F) in the lifting eye (H), or the lifting strap as set out in figure 19. Ensure the lifting hook's safety latch is locked.



WARNING!

For reasons of safety the chain sections (A and B) as well as the lifting eyes (H and J) must always be use.



Figure 19. Lifting using a lifting strap.

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Prevas Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K
			Pages 17/26

6. When lifting IRB 6600 the lifting stud (U) should be used. Assemble the lifting stud (U) by fitting a bolt (M12x50 8.8) (V) in one of the existing holes in the upper arm housing (Z). The bolt (V) is tightened so that good contact is made. A hexagonal, open ended or U-ring spanner should be used depending on the type of bolt head.

7. When lifting IRB 6600 the lifting eye (J) should be fitted in the lifting stud's (U) threaded hole. When lifting IRB 7600 the lifting eye (J) should be fitted in one of the existing threaded holes in the upper arm housing (Z). The lifting eye (J) is to be tightened hard against the surface, ensure that good contact is made. Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.

8. Fit the lifting hook (G) in the lifting eye (J). Ensure the lifting hook's safety latch is locked.

9. In some cases, the robot can be equipped with an external cable harness that is attached to the under and/or upper arm. It is then **extremely important that** the lifting accessory's four slings (R) run freely **between** the cable harness and the under and upper arms. The cabling may need to be removed.

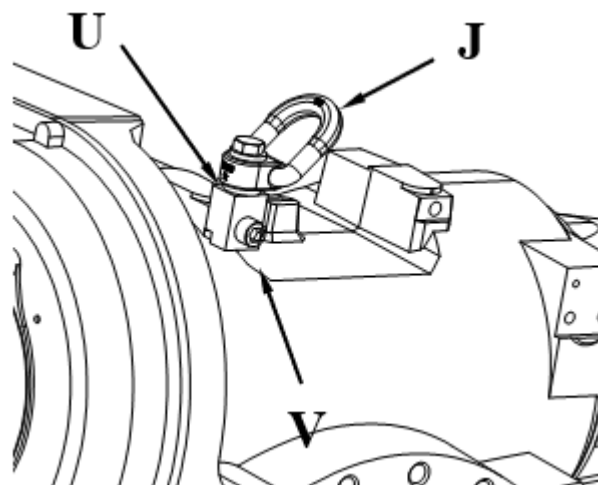


Figure 19. Lifting of IRB6600.

10. Release the base (AE) from the foundation in order to test lift the robot and find the correct setting of the chain sections (A and B).

11. Lift the entire robot carefully and stop when the load starts to move. Note which of the chain sections (A and B) that needs to be extended so that the load becomes balanced, i.e. moves horizontally.

12. Lower the load and extend the chain section (A or B) by moving its shortening hook (C or D) to a suitable chain link. It may be necessary to repeat this procedure several times to attain the correct lifting position.

13. Secure the base (AE) on the foundation using at least 2 of the original bolts, depending on whether the base (AE) is to be unbolted again at a later stage or not. Tighten the bolts diagonally.

14. Release the arm system of the robot (AB) from the gearbox (AD) by loosening the 24 bolts (AC). Use a 10 mm hexagonal spanner.

15. Remove the sync-plate from the base or make sure that the arm system (AB) is well supported without damaging the sync-plate.

16. Lift carefully and make sure that other parts such as the hooks, round slings and the like move to the correct lifting positions. Ensure that the lifting accessory does not rub against sharp edges, etcetera. The load should always be moved at a low speed. Continue to lift even if the load is unbalanced despite previous attempts to set the chain sections (A and B). The risk of damaging the guide surfaces is greater by re-lowering than with continued lifting. However, exercise great care to ensure the load is horizontal when assembling!

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 18/26

17. Carefully lower the load and make sure that it is well supported/anchored.
18. Unhook the lifting hook (G).
19. Release the lifting eye (J). Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
20. Release, where appropriate, (IRB 6600) the lifting stud (U) by unscrewing the bolt (V).
A hexagonal, open ended or U-ring spanner should be used depending on the type of bolt head.
21. Unhook the lifting hook (F).
22. Release the lifting eye (H) (or where appropriate the lifting strap as set out in figure 19). Use a fixed wrench/U-ring spanner 19 mm or a hexagonal key 8 mm.
23. Release the lifting accessory by unhooking the hooks (S) and removing the swivelling lifting eyes (T).
24. Unhook the lifting accessory.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 19/26

Usage – lifting of complete IRB 6620, 5710 and 5720

1. Hook on the lifting accessory's eye (E). Ensure the lifting hook's safety latch is locked.
2. Attach a lifting eye in the rear hole on the upper arm (J). Make sure you screw it in fully.
3. Thread a 1 ton lifting sling (AG) through the wrist (AH).
4. Assemble 4 lifting eyes M20 (AJ) in the base of the robot. The lifting eyes must be assembled the lifting hook's safety latch is locked. Attach a lifting eye in the rear hole on the upper arm (J). Make sure you screw it in fully. Thread a 1 ton lifting sling (AG) through the wrist (AH).
5. The hooks (S) are fitted in the lifting eyes (AJ), the safety latch must be locked. Make sure that the 4 round lifting slings (R) are not twisted. NOTE that the round lifting sling by the axis 2 motor (AK) must be placed on the inside of the motor cable harness.
6. Assemble the lifting hook (F) in the lifting sling (AG). Ensure the lifting hook's safety latch is locked.
7. In some cases, the robot can be equipped with an external cable harness that is attached to the under and/or upper arm. It is then extremely important that the lifting device's four slings (R) run freely between the cable harness and the under and upper arms. The cabling may need to be removed.
8. Lift carefully and stop when the load starts to move. Note which of the chain sections (A or B) that needs to be extended so that the load becomes balanced, i.e. moves horizontally.

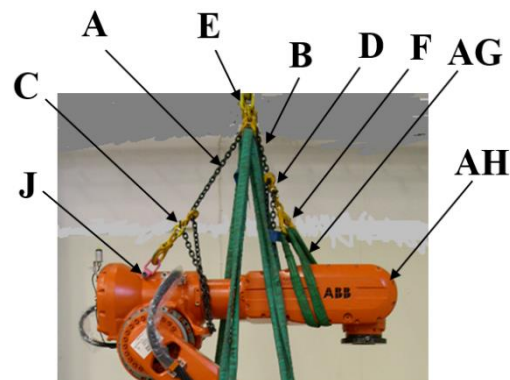


Figure 22. Lifting device – lifting IRB 6620 complete.

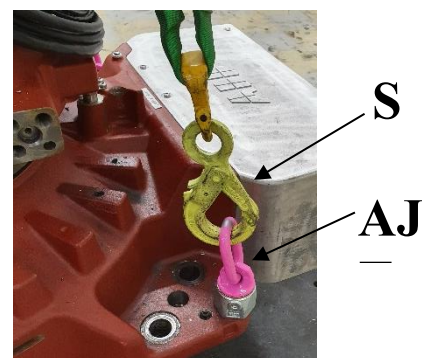


Figure 23. Lifting eye assembled in the base.

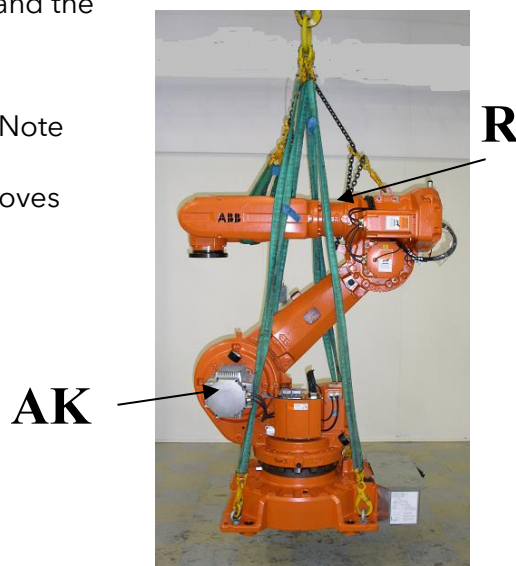


Figure 24. Lifting accessory – lifting IRB 6620 complete.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
Prevas Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K Pages 20/26

9. Lower the load and extend the chain section (A or B) by moving its shortening hook (C or D) to a suitable chain link. It may be necessary to repeat this procedure several times to attain the correct lifting position.
10. Lift carefully and make sure that other parts such as the hooks, round slings and the like move to the correct lifting positions. Ensure that the lifting device does not rub against sharp edges, etcetera. Lower the load and adjust if necessary. The load should always be moved at a low speed.
11. Carefully lower the load and make sure that it is well supported/anchored.
12. Unhook the lifting hooks (S).
13. Unhook the lifting hook (F).
14. Release the lifting eye (J).
15. Release the lifting sling (AG).
16. Unscrew the lifting eyes from the base of the robot (AJ).
17. Unhook the lifting accessory.

Note In the event that the whole or parts of the upper arm system is to be lifted for e.g. repair, use lifting accessory 3HAC026597-001.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 21/26

Usage – lifting IRB 660 complete

1. Hook on the lifting accessory's eye (E). Ensure the lifting hook's safety latch is locked.
2. Fasten 3 swivelling lifting eyes (M16) (T) into the lower holes on the stand intended for fork lift truck brackets. One on the side with the balancing cylinder (front mount) and two on the other side. Tighten the lifting eyes (T) hard against the surface, ensure that good contact is made.
3. The hooks (S) are fitted in the lifting eyes (T), the safety latch must be locked. Make sure that the 4 round lifting slings (R) are not twisted. The robot should be positioned so the round lifting sling closest to the balancing cylinder clears this.
4. The robot's upper arm must always be secured with a 1 ton lifting sling (AG), see figure 26. The sling is guided through the front hole in the robot's upper arm.
5. Fit the lifting sling (73) in the lifting hook as shown in figure 26. Ensure the lifting hook's safety latch is locked.



WARNING!

For reasons of safety the chain section and lifting sling must always be used.

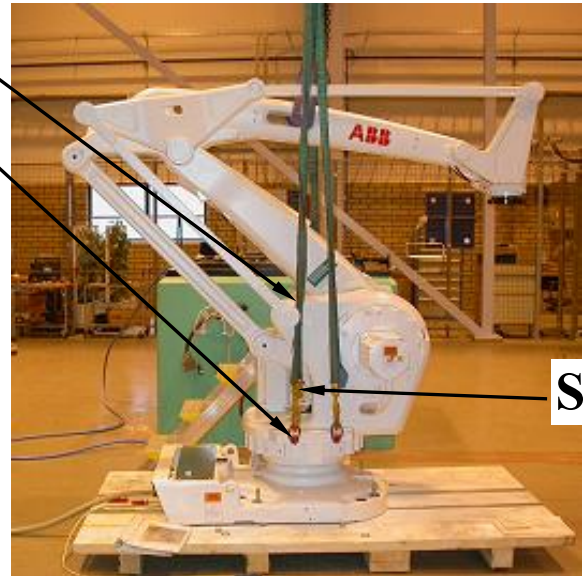


Figure 25. Lifting accessory – lift of IRB 660 complete.

6. Lift carefully and stop when the load starts to move. Make sure the safety sling is not loaded.
7. Ensure that other parts such as the hooks, round slings and the like move to the correct lifting positions. Ensure that the lifting device does not rub against sharp edges, etcetera. Lower the load and adjust if necessary. The load should always be moved at a low speed.
8. Carefully lower the load and make sure that it is well supported/anchored.
9. Unhook the lifting sling.
10. Release the lifting accessory by unhooking the hooks (S) and removing the swivelling lifting eyes (T).
11. Unhook the lifting accessory.

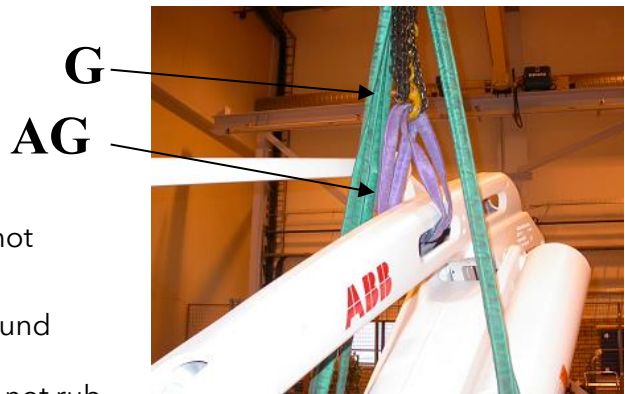


Figure 26. Securing the upper arm, IRB 660.

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
		Document No. P1839 Instr	Rev: K	Pages 22/26

Usage – lifting IRB 760 complete

1. Hook on the lifting device's eye (E) (figure 13, page 11). Ensure the lifting hook's safety latch is locked.
 2. Fit 4 swivelling lifting eyes (M16) (T) into the lower holes on the stand intended for fork lift truck brackets. 2 on the side with the balancing cylinder and 2 on the other side. Tighten the lifting eyes (T) hard against the surface, ensure that good contact is made.
 3. The hooks (S) are fitted in the lifting eyes (T), the safety latch must be locked. Make sure that the 4 round lifting slings (R) are not twisted.
 4. Note! Important that one of the lifting slings is located behind the link arm shaft, see figure 28.
 5. The robot's upper arm must always be secured with a 1 ton lifting sling (AG), see figure 29. The sling is guided through the front hole in the robot's upper arm.
 6. Fit the lifting sling (AG) in the lifting hook as shown in figure 29. Ensure the lifting hook's safety latch is locked.
- 
- Figure 27. Lifting access

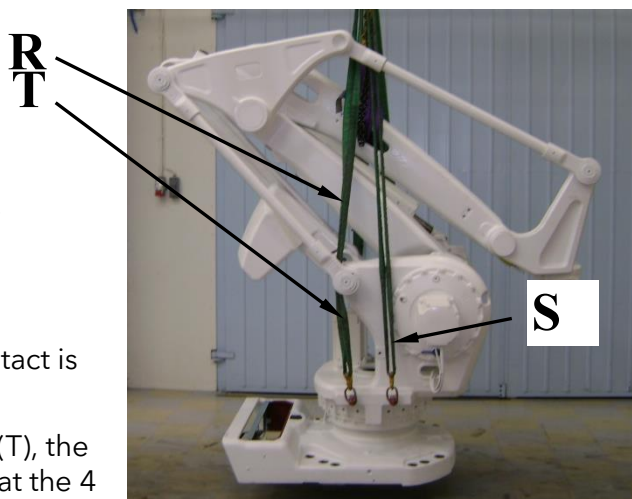
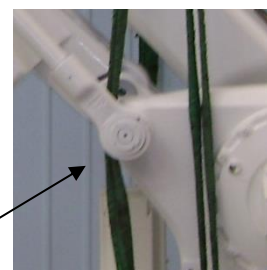


Figure 27. Lifting accessory – lift of IRB 760 complete.

WARNING!

For reasons of safety the chain section and lifting sling must always be used.



*Location of
lifting sling.*

Figure 28. Location of lifting sling, IRB 760.

7. Lift carefully and stop when the load starts to move. Make sure the safety sling is not loaded.
8. Ensure that other parts such as the hooks, round slings and the like move to the correct lifting positions. Ensure that the lifting device does not rub against sharp edges, etcetera. Lower the load and adjust if necessary. The load should always be moved at a low speed.
9. Carefully lower the load and make sure that it is well supported/anchored.
10. Unhook the lifting sling.
11. Release the lifting accessory by unhooking the hooks (S) and removing the swivelling lifting eyes (T).
12. Unhook the lifting accessory.

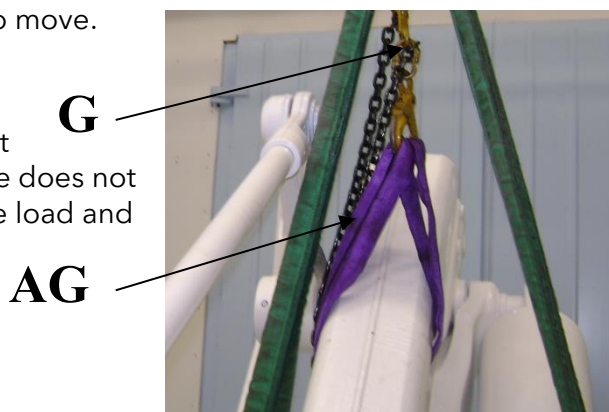


Figure 29. Securing the upper arm, IRB 760.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual	
		Description - Technical Provisions		
		User manual for 3HAC15607-1 ABB user manual 3HAC15971-2		
Document No.		Rev:	Pages	
P1839 Instr		K	23/26	

MAINTENANCE / SPARE PARTS

General

Defective components must be replaced with new components. Contact the manufacturer if any component needs replacing.

Spare parts

ART.NR	DESCRIPTION	MANUFACTURER ARTICLE NO.	MANUFACTURER
3HAC14457-4	Lifting eye	VWBG-V-1.3t-M16	RUD
3HAC14738-8	Sling		
3HAC14738-22	Lifting eye	VLBG-PLUS-1t-M12	RUD
3HAC15706-12	Safety hook	OBK-7/8-10	Gunnebo Industrier
3HAC076724-001	Lifting eye	VWBG-2t-M20	RUD

Periodic maintenanc

The lifting accessory shall undergo periodic maintenance and according to this user manuals maintenace instructions.

DISMANTLING/RECYCLING

The accesory is dismantled in parts.

Parts are sorted as scrap metal.

Return for recycling.

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2	
		Document No. P1839 Instr	Rev: K Pages 24/26

REVISION HISTORY

<i>Rev</i>	<i>Change</i>	<i>Date</i>	<i>Approved by</i>
J	Manufacturer was Deva Mecaneyes AB.	2021-12-01	BOKv
K	Robot models 6710, 6720 6730 and 6740 added //MirBe	2022-04-26	SoFy

Prepared by Miroslaw Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
 Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2			
Document No. P1839 Instr			Rev: K
			Pages 25/26

EC DECLARATION OF CONFORMITY

EC DECLARATION OF CONFORMITY

According to the machinery directive 2006/42/EC, Annex II A.

The manufacturer:

Prevas Industrial Innovation AB

Glödgaränd 14

E-mail: info@prevas.se

SE-721 30 Västerås

Sweden

Hereby declare that:

Machinery: Lifting accessory

Type: 3HAC15607-1

ABB No.: 3HAC15607-1

S/N: 01

a) is manufactured in compliance of the Machine Directive 2006/42/EC, referring to relevant parts in Annex 1 "Essential health and safety requirements".

b) is in addition to a) manufactured according to other applicable directives, such as:

c) is manufactured in compliance with the following harmonised standards:

SS-EN ISO 12100:2010

d) is manufactured in compliance with the following national technical standards and specification:

This declaration of conformity relates exclusively to the machinery (product) in the state in which it was placed on the market. If the end user adds parts to the machinery or alters the machinery, the EC Declaration of conformity does not cover those additions or alterations.

Name and address of the person authorized to compile the technical file according to Annex VII A, established within the EEA.

Name: Bengt-Ola Kvist

Address: Glödgaränd 14
SE-721 30 Västerås
Sweden

Location:

Date: 2021-12-01

Västerås

Authorized signatory:

Magnus Welén

Prepared by Mirosław Benendo	Approved by B-O Kvist	Approved date 2021-12-01	Original user manual
		Description - Technical Provisions User manual for 3HAC15607-1 ABB user manual 3HAC15971-2	
		Document No. P1839 Instr	Rev: K Pages 26/26