



May 15, 2017



Attention: Mr. Ashley Coulter

RE: Inspection of Grove Rough Terrain Crane
Model RT528C, S/N 86399, Unit Y5514
Date of Inspection: May 3, 2017
Purchase Order: Ashley
Our File: K18189-8

Visual examinations and magnetic particle inspections were performed on the above-described equipment. The specific items examined and our inspection findings were as follows:

1. Wheel Rims - no defects noted.
2. Steering Knuckles (4x) - no defects noted.
3. Undercarriage - no defects noted.
4. Outriggers and Box Frames (4x) - no defects noted.
5. Ring Gear (visual) - no defects noted.
6. Rotating Frame - no defects noted.
7. Counterweight - no defects noted.
8. Winch Attachment - no defects noted.
9. Boom Butt Section - no defects noted.
10. Boom Intermediate Section - no defects noted.
11. Boom Tip Section - no defects noted.
12. Sheaves (visual) - no defects noted.
13. Load Line (spooled) - no defects noted.
14. 5/8" Crosby Wedge Socket - no defects noted.
15. 28-Ton SWL Johnson Load Block and Hook - no defects noted.

Note: The equipment manager/owner is to ensure that the above-described equipment is in compliance with CSA Z150-98, section 5.3.6 (d), regarding the inspection of all telescopic boom sections while fully disassembled at 10 year intervals.

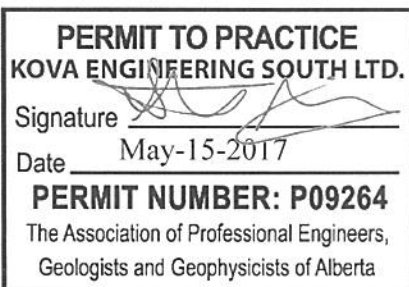
Based on our examination findings, the inspected equipment is recommended for service.

Yours very truly,

KOVA ENGINEERING SOUTH LTD.



Stanley Giang, P. Eng.
SG:jc





ENGINEERING CERTIFICATION



Grove Rough Terrain Crane
Model RT528C, S/N 86399, Unit Y5514

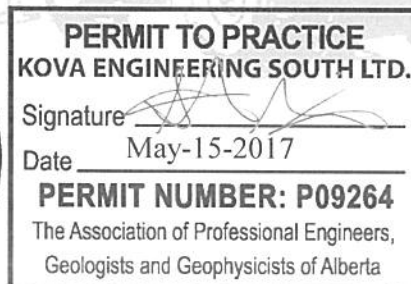
Our File: K18189-8

Date of Inspection: May 3, 2017

Structural inspections were performed on the above-described equipment. The following components were inspected, repaired where required, and found suitable for service:

1. Wheel Rims
2. Steering Knuckles (4x)
3. Undercarriage
4. Outriggers and Box Frames (4x)
5. Ring Gear (visual)
6. Rotating Frame
7. Counterweight
8. Winch Attachment
9. Boom Butt Section
10. Boom Intermediate Section
11. Boom Tip Section
12. Sheaves (visual)
13. Load Line (spooled)
14. 5/8" Crosby Wedge Socket
15. 28-Ton SWL Johnson Load Block and Hook

KOVA ENGINEERING SOUTH LTD.



Stanley Giang, P. Eng.

Kova Engineering South Ltd.



LIFT EQUIPMENT CONSULTING & INSPECTION

6939 - 48th Street S.E

Calgary, Alberta T2C 5A4

Office: (403) 258-0484 • Fax: (403) 258-2854

Technical Report

OWNER:

Our File: K-16440-1

Date: MAY 4/16

ATTENTION: ASHLEY COULTER

Your Reference:

Re: INSPECTION OF GROVE ROUGH TERRAIN CRANE.

Notes: MOD: RT 528C SH: 86399

VISUAL AND MAGNETIC PARTICLE INSPECTIONS WERE PERFORMED ON THE FOLLOWING COMPONENTS

- | | |
|--|------------------|
| 1) WHEEL RIMS | NO DEFECTS NOTED |
| 2) STEERING KNUCKLES (4X) | NDM |
| 3) UNDER CARRIAGE | NDM |
| 4) OUTRIGGERS: BOX FRAMES (4X) | NDM |
| 5) RING GEAR (VISUAL) | NDM |
| 6) ROTATING FRAME | NDM |
| 7) COUNTER WEIGHT | NDM |
| 8) WINCH ATTACHMENT | NDM |
| 9) BOOM BUTT SECTION | NDM |
| 10) BOOM INTERMEDIATE SECTION | NDM |
| 11) BOOM TIP SECTION | NDM |
| 12) SHEAVES (VISUAL) | NDM |
| 13) LOAD LINE (3,000lb.) | NDM |
| 14) 28 TON SWL JOHNSON LOAD BLOCK & HOOK | NDM |
| 15) 5/8" CROSBY WELFIDGIE SOCKET | NDM |

FORUM REPORT TO FOLLOW
STRUCTURE ISSUED


James McIntyre



June 13, 2016



Attention: Mr. Ashley Coulter

RE: Inspection of Grove Rough Terrain Crane
Model RT 528C, S/N 86399
Date of Inspection: May 4, 2016
Purchase Order: R1264930
Our File: K16440-1

Visual examinations and magnetic particle inspections were performed on the above-described equipment. The specific items examined and our inspection findings were as follows:

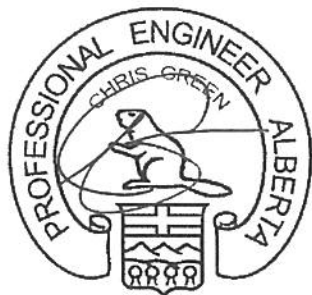
1. Wheel Rims - no defects noted.
2. Steering Knuckles (4x) - no defects noted.
3. Undercarriage - no defects noted.
4. Outriggers and Box Frames (4x) - no defects noted.
5. Ring Gear (visual) - no defects noted.
6. Rotating Frame - no defects noted.
7. Counterweight - no defects noted.
8. Winch Attachment - no defects noted.
9. Boom Butt Section - no defects noted.
10. Boom Intermediate Section - no defects noted.
11. Boom Tip Section - no defects noted.
12. Sheaves (visual) - no defects noted.
13. Load Line (spooled) - no defects noted.
14. 28-Ton SWI Johnson Load Block and Hook - no defects noted.
15. 5/8" Crosby Wedge Socket - no defects noted.

Note: The equipment manager/owner is to ensure that the above-described equipment is in compliance with CSA Z150-98, section 5.3.6 (d), regarding the inspection of all telescopic boom sections while fully disassembled at 10 year intervals.

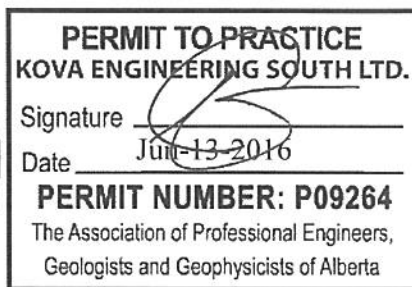
Based on our examination findings, the inspected equipment is recommended for service.

Yours very truly,

KOVA ENGINEERING SOUTH LTD.



Chris Green, P. Eng.
CG:jc



Kova Engineering South Ltd.

6939 - 48th Street S.E., Calgary, AB T2C 5A4

Office: (403) 258-0484 • Fax: (403) 258-2854



ENGINEERING CERTIFICATION



Grove Rough Terrain Crane
Model RT 528C, S/N 86399

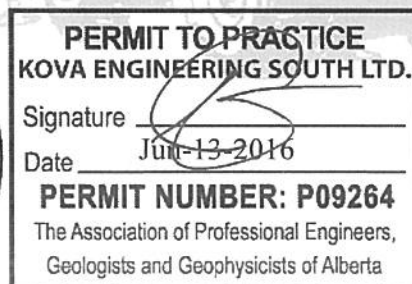
Our File: K16440-1

Date of Inspection: May 4, 2016

Structural inspections were performed on the above-described equipment. The following components were inspected, repaired where required, and found suitable for service:

1. Wheel Rims
2. Steering Knuckles (4x)
3. Undercarriage
4. Outriggers and Box Frames (4x)
5. Ring Gear (visual)
6. Rotating Frame
7. Counterweight
8. Winch Attachment
9. Boom Butt Section
10. Boom Intermediate Section
11. Boom Tip Section
12. Sheaves (visual)
13. Load Line (spooled)
14. 28-Ton SWI Johnson Load Block and Hook
15. 5/8" Crosby Wedge Socket

KOVA ENGINEERING SOUTH LTD.



Chris Green, P. Eng.



April 23, 2015



Attention: Mr. Gary Galambos

RE: Inspection of Grove Rough Terrain Crane
Model RT528C, S/N 86399
Date of Inspection: April 13, 2015
Purchase Order: R1262594
Our File: K14177-1

Visual examinations and magnetic particle inspections were performed on the above-described equipment. The specific items examined and our inspection findings were as follows:

1. Wheel Rims - no defects noted.
2. Steering Knuckles (4x) - no defects noted.
3. Undercarriage - no defects noted.
4. Outriggers and Box Frames (4x) - no defects noted.
5. Ring Gear (visual) - no defects noted.
6. Rotating Frame - no defects noted.
7. Counterweight - no defects noted.
8. Winch Attachment - no defects noted.
9. Boom Butt Section - no defects noted.
10. Boom Intermediate Section - no defects noted.
11. Boom Tip Section - no defects noted.
12. Sheaves (visual) - no defects noted.
13. Load Line (spooled) - no defects noted.
14. 28-Ton SWL Johnson Load Block and Hook - no defects noted.
15. 5/8" Crosby Wedge Socket - no defects noted.

Note: The equipment manager/owner is to ensure that the above-described equipment is in compliance with CSA Z150-98, section 5.3.6 (d), regarding the inspection of all telescopic boom sections while fully disassembled at 10 year intervals.

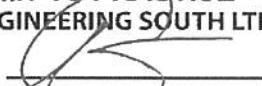
Based on our examination findings, the inspected equipment is recommended for service.

Yours very truly,

KOVA ENGINEERING SOUTH LTD.



Chris Green, P. Eng.
CG:jc

PERMIT TO PRACTICE KOVA ENGINEERING SOUTH LTD.
Signature 
Date <u>Apr-23-2015</u>
PERMIT NUMBER: P09264
The Association of Professional Engineers, Geologists and Geophysicists of Alberta



ENGINEERING CERTIFICATION

Grove Rough Terrain Crane
Model RT528C, S/N 86399

Our File: K14177-1



Date of Inspection: April 13, 2015

Structural inspections were performed on the above-described equipment. The following components were inspected, repaired where required, and found suitable for service:

1. Wheel Rims
2. Steering Knuckles (4x)
3. Undercarriage
4. Outriggers and Box Frames (4x)
5. Ring Gear (visual)
6. Rotating Frame
7. Counterweight
8. Winch Attachment
9. Boom Butt Section
10. Boom Intermediate Section
11. Boom Tip Section
12. Sheaves (visual)
13. Load Line (spooled)
14. 28-Ton SWL Johnson Load Block and Hook
15. 5/8" Crosby Wedge Socket

KOVA ENGINEERING SOUTH LTD.



PERMIT TO PRACTICE KOVA ENGINEERING SOUTH LTD.	
Signature	
Date	Apr-23-2015
PERMIT NUMBER: P09264	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta	

Chris Green, P. Eng.

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6939 - 48th Street S.E., Calgary, AB T2C 5A4

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ENGINEERING CERTIFICATION

Grove Rough Terrain Crane
Model RT528C, S/N 86399



Our File: K12229-4

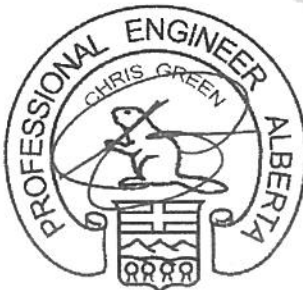


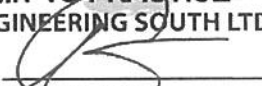
Date of Inspection: May 22, 2014

Structural inspections were performed on the above-described equipment. The following components were inspected, repaired where required, and found suitable for service:

1. Wheel Rims
2. Steering Knuckles (4x)
3. Undercarriage
4. Front Outriggers and Boxframes
5. Rear Outriggers and Boxframes
6. Main Frame
7. Ring Gear (visual)
8. Rotating Frame
9. Counterweight
10. Winch Attachment
11. Boom Butt Section
12. Boom Intermediate Section
13. Boom Tip Section
14. Sheaves (visual)
15. Load Line (spooled)
16. 28-Ton S.W.L. Johnson Load Block and Hook
17. 5/8" Crosby Wedge Socket

KOVA ENGINEERING SOUTH LTD.



PERMIT TO PRACTICE KOVA ENGINEERING SOUTH LTD.
Signature 
Date <u>May 30 2014</u>
PERMIT NUMBER: P09264
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Chris Green, P. Eng.



ENGINEERING CERTIFICATION 10 YR. DISASSEMBLED BOOM INSPECTION

Grove Rough Terrain Crane
Model RT528C, S/N 86399


Our File: K04021

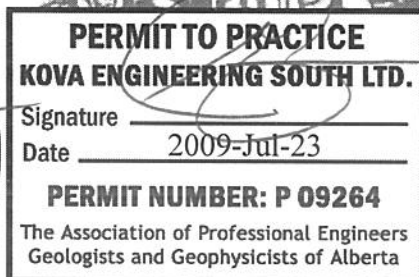
Date of Inspection: May 12, 2009

Structural inspections were performed on the above-described equipment. The following components were inspected, repaired where required, and found suitable for service:

1. Outriggers and Box Frames
2. Undercarriage
3. Steering Knuckles (4x)
4. Ring Gear (visual)
5. Rotating Frame
6. Counterweight
7. Boom Butt Section
8. Boom Intermediate Section
9. Boom Tip Section (dead)
10. Sheaves (visual)
11. Load Line (completely spooled)
12. 8-Ton S.W.L. Johnson Load Block and Hook
13. 5/8" Crosby Wedge Socket

NOTE: The ten-year disassembled boom inspection was performed in accordance with CSA Z150-98.

KOVA ENGINEERING SOUTH LTD.



Chris Green, P. Eng.